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ABSTRACT

This volume briefly describes the Child and Family Resource Program (CFRP) and presents the evaluation study design for CFRP. The program, funded at 11 sites across the country as a Head Start Demonstration program, is intended to develop models for providing services to low-income families with children from birth to eight years. The 6-year longitudinal evaluation will include data from all 11 sites, but at six sites the evaluation will focus on families with a child under the age of one who entered the program in 1978, and a comparison group of families not in the program at each of these sites. The research questions, analytic methods and major variables to be investigated are discussed. Three elements of the evaluation are explicated in relation to the three sub-studies: The Descriptive Program Study of all 11 CFRP sites, the In-Depth Study of families and staff in CFRP, and the Impact Study of the program families and comparison groups at six sites. Three appendices discuss reliability, statistical power and measuring change, and a fourth presents the CFRP Guidelines. (Author/BH)

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Volume I:
Design Report Draft
Evaluation of the Child and Family Resource Program

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1.0 INTRODUCTION

1.1 Overview

The Child and Family Resource Program (CFRP) is a program designed to provide family support services crucial for, and directly related to, the sustained healthy growth and development of children from the prenatal period through age eight. The CFRP is funded by the Administration for Children, Youth, and Families (ACYF) of the Department of Health, Education and Welfare and is operated by Head Start grantees. Child and Family Resource Programs have been funded in eleven sites, each program serving at least 80 low-income families from a variety of ethnic and cultural backgrounds.

The intent of the program is to develop models or approaches for providing and coordinating services to families, models which can be adapted by different communities to provide continuity of services to children during major stages of their development. In October, 1977, ACYF funded a longitudinal evaluation of the effectiveness of the eleven programs. The evaluation will focus on families with a child under the age of one who enter the program in six of the sites in the fall of 1978. These infants and families will be followed until the children enter the first grade (approximately 1984). In these six sites, a comparison group of families not receiving CFRP services will also be followed over the same period. In addition, extensive interviews with program staff and community leaders will be conducted throughout the entire course of the study.

1.2 Organization of the Report

This report describes the research design, research questions and analytic procedures to be employed in the evaluation of CFRP. There are two major sections to the report. Section 2 is a discussion of the research design and research questions for the evaluation and the three major substudies of the evaluation. Section 3, along with the associated appendices, is a description of analytic procedures that will be employed during the analyses of the baseline information gathered in the fall of 1978.

2.0 THE CHILD AND FAMILY RESOURCE PROGRAM EVALUATION

2.1 The CFRP Model and Objectives

The Child and Family Resource Program (CFRP) is a national Head Start demonstration program and is one of several Head Start Program Development and Innovation Division efforts to develop models for providing developmental services and support to families with young children. The CFR Program enrolls eligible families with children aged birth to eight years, with particular emphasis on children from birth through eight years. CFRP also includes traditional Head Start classroom education and services for preschool children. Not only does the program serve a broader age range of children than Head Start, but it also focuses on families rather than just on children and works through the family to promote healthy growth and development for children. Perhaps the most distinctive feature of CFRP is its emphasis on a comprehensive assessment of each family's strengths and needs and the creation of an individualized plan developed with the family for services obtained through CFRP.

In addition to offering the full range of educational health and social services provided through Head Start, CFRP must also provide:

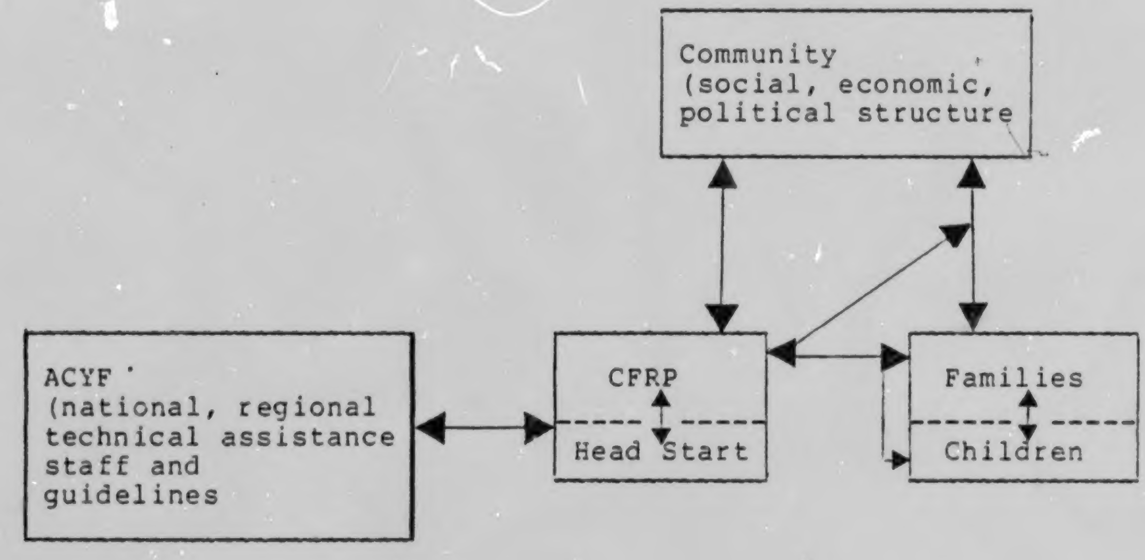
- Comprehensive individual assessment of family and child needs, based on consultation with the family
- Preventive, treatment, and rehabilitative services as required for individually diagnosed medical, dental, nutritional, and mental health needs of children up to eight years of age
- Family support services such as emergency services, individual and group counseling, referral services, and family planning assistance;

- Prenatal medical care and educational services for pregnant mothers
- Developmental services for families and children, including
    - Programs to assist parents promote the total development of infants and toddlers through age three, The Infant/Toddler Component;
    - Preschool comprehensive Head Start services for children from three to five in Head Start Centers;
    - Programs designed to ensure smooth transition for children from preschool into the early elementary grades, The Preschool-School Linkage Component
    - Group activities and family development programs for parents;
    - Special programs for children with handicapping conditions.

Once a family is enrolled in CFRP, the assessment process is begun with family members and CFRP staff taking the major share of responsibility for identifying services and activities the family wants from CFRP. CFRP staff then work in a variety of ways to help families obtain what they want. They work directly with CFRP family members, particularly the parents and children between birth and age eight; they work indirectly on behalf of families by coordinating or advocating better servcies for particular families; they also work with community agencies to improve services in general for low-income families and to develop needed services not already available in the community. Interactions among CFRP staff, families and the community are therefore complex and interrelated. Families influence the particular set of services they get from CFRP; CFRP influences the family directly and indirectly by affecting the way the family interacts with the community. The community influences the services provided by the CFRP and constitutes the environment in which families rear their children. Through their coordination work, CFRP staff also influence the services available and families' access to them. CFRPs have one other source of influence: National CFRP Guidelines and direction from the national CFR Program Office in the Administration for Children, Youth and Families. CFRP in operation involves four sets of actors and the relationships among them: families, CFRP staff and program operations, the local communities in which CFRPs operate, and ACYF's national policies toward CFRP. Each of these is represented by a box in the model shown in Figure 2.1.

Figure 2.1

CFRP Model


Community
(social, economic,
political structure
ACYF
(national, regional
technical assistance
staff and
guidelines
CFRP
Head Start
Families
Children

Community/CFRP Link

The CFRP is expected to coordinate existing community services to avoid duplication and to develop new services as needed by participating families. Therefore, the CFRP staff must be involved with the social, political, and economic structure of the community as advocates for low-income families in general as well as being coordinators and facilitators of services for CFRP families.

Family/CFRP Links

Interactions between CFRP staff and families are basically of two types. CFRP staff interact directly with family members, assessing strengths and needs, then helping parents make plans for the services and activities they want. Direct interactions include center-based programs to assist activities for mothers and infants, home visits to parents, Head Start services for preschoolers, group activities and family development education for parents, and prenatal medical care and educational services for pregnant mothers. CFRP's influence on children is considered to be "filtered" through interactions with the family in this model. That is, outcomes for children as a result of participation in CFRP depend primarily on the program's work with families rather than on intervention directly for children. Second, CFRP influences the interactions between enrolled families and the community. The program builds upon the capabilities of existing services provided by other agencies, assisting and advising families about available resources and thereby reducing fragmentation and gaps in the delivery of relevant services.

ACYF-CFRP Link

ACYF has established CFRP Guidelines which identify general goals and specify minimum services to be provided (including those required by the Head Start Performance Standards). Local projects are also influenced by training and technical assistance staff and staff from national and regional ACYF offices who advise and assist programs in meeting required standards. In turn, the projects provide feedback through these staff and through periodic reports upon the types of activities and resources that would be most responsive to the needs of the target families.

It is important, finally, to recognize that what potentially distinguishes CFRP from traditional Head Start programs is not just the model of services and activities provided, but is rather its underlying philosophy toward working with families and operating as a central source of services and support for them. This philosophy is expressed in CFRP's stated objectives:

1) to individualize and tailor programs and services to children and their families;

2) to link resources in the community so that families may choose from a variety of programs and services but deal primarily with one resource center for all young children in the same family;

3) to provide continuity of resources and support to families in order to guide the development of their children from the prenatal period through early school years;

4) to enhance and build upon the strengths of the individual family as a child-rearing system, with distinct values, culture and aspirations.

It is this philosophy, as well as the mix of services offered, that CFRP was designed as a research and demonstration program to test, demonstrate, and explore.

Evaluation of the Demonstration

Beginning in 1973, the CFRP was funded through Head Start grantees in 11 locations (one each in the ten HEW regions and one representing the Indian and Migrant Division) to demonstrate the feasibility of developing comprehensive approaches to providing child and family services within the framework of Head Start. Each program received about $125,000/year for each of the demonstration years and was to serve between 80-100 families.

The 11 demonstration programs were funded to test the feasibility of implementing a comprehensive service delivery system to meet needs of families with children from birth to eight years and to determine whether provision of services to all family members does more to enhance the development of the child than provision only to the child during the Head Start years. Also programs were to demonstrate what resources and staff would be required if Head Start programs were to adopt various CFRP features.

Three research studies were funded during the first four years of the demonstration. The first was a formative evaluation conducted in 1974-75 by Development Associates which focused on the start-up of the CFRP--the strengths and weaknesses of the planning process, the extent to which appropriate services had been provided and appropriate resources utilized, and the extent of implementation of the CFRP Guidelines. Concurrent with this evaluation, a feasibility study was conducted by Huron Institute which examined the potential of conducting a summative evaluation of CFRP. It argued, essentially, that a summative evaluation performed in the early stages of CFRP would be unlikely to discover meaningful impacts on children or parents.

A second evaluation contract was awarded to Development Associates for 1975-77. The objective here was to determine degrees of implementation of program components, relationships between the implementation and child/parent outcomes, and the effectiveness of the program in promoting desired child/parent outcomes. The evaluation provided that implementation of CFRP had been accomplished. Evaluation efforts had been hampered by the difficulty in defining individualized CFRP "treatment" along with other administrative problems, including lack of clearance for evaluation instruments by OMB. Thus no impact data had yet been available to policy planners. However, results from evaluations of other family-focused programs such as Parent-Child Development Centers and Home Start suggested that such programs were comparable to traditional Head Start programs in terms of their impacts on children.

Concurrent research findings from Parent Child Development Centers, Home Start, Project Developmental Continuity, and other programs, as well as the work of independent researchers (White, Carew, Gray, Gordon, Lazar Levenstein, Weikart, Bronfenbrenner, Lally, Honig and others) pointed to the importance of the family in the well-being and development of the child. Sufficient evidence was available to justify the continuation of the CFRP demonstration and the initiation of an evaluation of its effect on families and patterns of service provided to families.

The present evaluation contract was awarded to Abt Associates Inc. (AAI) on October 1, 1977. The past year has been devoted to the final design of the evaluation. For the present evaluation, ACYF requires complex information about the effectiveness of CFRP in order to make policy decisions about the expansion of CFRP models or some of their important features within Head Start. The broad policy questions posed by ACYF are these:

- What should be the nature and extent of services provided to families in order to enhance their child's development? What processes work best?
- What should be the nature and extent of the continuity of services delivered to children? For how long and through what processes?

These broad policy questions lead to several specific questions which the present evaluation is designed to help answer:

- What distinct models of CFRP can be identified among the 11 demonstration programs?

  --What adaptations of the basic three components and the common CFRP processes (assessment, goal setting and planning) are characteristic of these models?

  --What types of staff, program operations and service packages are characteristic of these CFRP models, and what types of families are they serving?

- How is CFRP defined and carried out in general in all 11 sites; how does it work specifically for individual families in six sites in terms of:

  --Individualization of services

  --Family assessment and planning

  --Developmental services for chidren at three ages

    - Infant-Toddler
    - Head Start
    - Transition to school (preschool-school linkages)

  --Family support and involvement, including parent education

  --Coordinated resources

- What characteristics of families, CFRP staff, and CFRP activities/services seem to be associated with outcomes or changes in CFRP families?

- What changes or outcomes can be identified in families who have participated in CFRP compared to outcomes for families who have not participated?

Evaluation Objectives

The current evaluation of CFRP is designed to provide information that will help ACYF answer the foregoing questions. Information about communities, projects, and families in general will be collected from all 11 demonstration projects. In six of the 11 sites, information will be collected about the way CFRP operates with a sample of specific families and about a comparative sample of eligible families not participating in CFRP (see Table 2.1).

The broad objectives of the evaluation are:

- To define and describe characteristics of families, staff, programs, and communities participating in the demonstration and the evaluation;
- To associate specific characteristics of families, staff, and CFRP treatments with changes or outcomes in CFRP families;
- To identify changes or outcomes for families in CFRP compared to families who have not participated in the program.

Data needed in order to address these objectives will be gathered in three studies. The studies differ according to the research questions asked, the level at which data are collected, and the sample of families and sites studied. The individual studies, their particular research questions, and analytic schedules will be discussed in later sections of this chapter. What follows here is an overview of the ways in which each of the evaluation objectives will be addressed.

The first evaluation objective--to describe and define characteristics of families, CFRP staff, and communities--will be addressed in two studies: a Program Study and an In-Depth Study. The Program Study will be entirely descriptive, using aggregated information about CFRP families and communities in all sites. The Program Study will use information from staff interviews, program records and interviews with community service staff. The In-Depth Study

Table 2.1

Summary of CFRP Sites[1]

	Location/Type	Number Staff	Number Families	Percent Race			
				Black	Hispanic	Nat. Am.	White
Six Summative Sites							
New Haven, Connecticut	urban	13	101	54	16	0	30
St. Petersburg, Florida	urban	10	138	85	0	0	15
Jackson, Michigan	rural and small town	12	102	30	5	0	65
Las Vegas, Nevada	urban pocket-rural surround	13	82	50	10	10	30
Oklahoma City, Oklahoma	semi-rural	18	97	90	0	0	10
Salem, Oregon	small town	22	110	5	0	10	85
Other Program Sites							
Modesto, California	rural	4	80	0	100	0	0
Gering, Nebraska	rural	25	108	0	54	14	33
Poughkeepsie, New York	urban	8	80	50	0	0	50
Bismarck, North Dakota	urban pocket-rural surround	18	99	4	0	9	87
Pottsville, Pennsylvania	semi-rural	21	141	4	0	0	96

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[1] Data compiled from informal conversations with CFRP Project Directors in October 1977.

will describe in greater detail the CFRP treatment, and characteristics of families at the individual family level as well as characteristics of the staff who work directly with families.

The primary objective of the In-Depth Study, however, is to address the second evaluation objective. The In-Depth study is designed explore the relationships among characteristics of families and staff, the interactions and services between staff and families in CFRP, and outcomes for two groups of families. One group is a longitudinal sample consisting of 40 families in each of six sites who are newly enrolled in CFRP in the fall of 1978, each of which has a child less than one year old. This sample of families and infants will be followed until the child has completed a year of public school (approximately 1984). The evaluation will study these families as they participate naturally in CFRP over a six-year period. A second sample of 10 families in each site will be selected in 1979 to participate in case study interviews over a two-year period. These will be families with children making the transition from Head Start to public school. They will be studied in order to learn about the CFRP services for families with children in that age group. The In-Depth Study will collect information from interviews with parents, CFRP staff, program records and staff of community agencies and schools to study how CFRP, families and the community interact at the individual level and how interactions are related to outcomes for the families.

The third evaluation objective--to attribute outcomes for families as a result of their participation in CFRP--will be addressed in the experimental Impact Study. This study will use the same six CFRP sites as the In-Depth Study. A treatment-comparison group design will be used to compare families on outcomes for parents and children over time. The 40 CFRP families studied in the In-Depth Study were selected at random for entry to CFRP in fall 1978 from a pool of 100-120 eligible families recruited in the usual manner by CFRP staff in summer 1978. A comparison group for the Impact Study consists of all the remaining families (60-80 in each site). Interviews with parents, medical and school records, and child assessments will be used to assess outcomes for families.

Each of the studies will be conducted over several years. Different aspects of each study will be emphasized at different years over the planned six-year period of the evaluation. At the end of the first study year, only a limited amount of information will be available. Interviews with community services staff, for example, will not take place until Year Two of the Program Study; direct assessment of child outcomes will not be done until children enter Head Start in Year Four. A simple time line of study milestones is shown in Figure 2.2. The first round of data collection is being conducted in fall 1978 when CFRP staff and parents from CFRP and comparison group families are being interviewed.

Evaluation Variables

Four categories of variables have been defined for use in the evaluation and will be used differently in the three studies. The four categories are input, outcome, process and output. A brief rationale for these categories follows.

Many evaluations of programs for children have been primarily input-outcome models in which outcomes for children were compared and related to background or entry-level characteristics, and some relationship of these outcomes to the intervening program was assumed or hypothesized. In the CFRP evaluation, inputs include background variables for families and staff, community resources and demographics,

Figure 2.2

Evaluation Milestones in Year One and Year Two

	YEAR ONE		YEAR TWO	
	Fall	Spring	Fall	Spring
Program Study				
Project Visits:				
All Sites			x	
Summative Sites	x			
Telephone Interviews:		x		x
All Sites				
Non-Summative Sites	x			
Community Agency and Service Census			x	
Project Summary Data (data reporting system)	x	x	x	x
In-Depth Study				
Baseline CFRP Parent Interview (240 families with infants at each site)	x			
Follow-up CFRP Parent Interview (240 families)		x	x	x
CFRP Staff Interview: Family Specific	x	x	x	x
Family Records: CFRP Participation	x	x	x	x
Case Study Sample Selection (10 families with preschoolers at each site)			x	
Case Study Interviews for Preschool Linkages Component:				
CFRP Staff			x	x
60 Families				x
Community Agency Interviews			x	
Impact Study				
Baseline Parent Interview:				
240 CFRP Families	x			
460 non-CFRP Families	x			
Follow-up Interview:				
460 non-CFRP Families		x	x	x
Selection of Child Assessment Measures				x
Reports				
Interim Report: Baseline descriptive data from fall 1978	February 1979			
Year One Report: Data from fall 1978, spring 1979			December 1979	

descriptions of program organization and resource allocations, and information about national and regional ACYF guidance. Measures of input variables describe the context in which the CFRPs operate--the available resources and the characteristics of the communities and families served at any point in time. Input variables will be used in all three studies.

Outcome variables are expected to capture the effects of CFRP participation. Two sets of outcomes can be distinguished: one for the Impact Study comparison between CFRP and non-CFRP families and the other for In-Depth sample of CFRP families only. For the Impact Study, all families in the evaluation will be measured in five outcome areas:

- Family circumstances (employment, education, family membership)
- Maternal and child health
- Parent-child relationships and interaction
- Child development and achievement
- Capacity for Independence (use of community resources, locus of control and coping strategies, affiliation with family and social networks).

The In-Depth Study will examine outcomes reflecting:

- Attainment of goals set by family and CFRP staff
- Family satisfaction with CFRP.

The In-Depth Study will attempt to relate outcomes about CFRP participation.

Data about CFRP families will be aggregated at the project level to construt project-level outcomes reflecting the extent to which the project is:

- Helping families attain their own goals
- Providing services in accordance with local project goals and CFRP guidelines.

The In-Depth Study data about outcomes for CFRP families also will be analyzed in relation to outcomes for those families who are part of the Impact Study: (health, parent-child interaction, etc.).

Two remaining sets of variables used in this evaluation are *process* and *output*. These two sets of variables correspond to two aspects of CFRP treatment: the services and activities delivered (output) and the processes and interactions through which the services are planned and delivered (process).

It is common for the term "process" to refer to a type of study rather than a set of variables within the study. With this use a "process" evaluation is one that identifies whether programs are providing the services for which they are mandated (Zigler and Trickett, 1978). In such a study the definition and identification of services delivered is often the sole definition of program treatment. The nature and goals of CFRP, however, require a much more extensive definition of treatment. To be sure, CFRP is mandated to provide services and activities; but it is also guided by general goals which imply the importance of how services are provided as well as what services are provided. The most important of these general goals is individualization of services to families. Others include fostering independence for families, building on family strengths and providing continuity of resources. These CFRP goals, however, have not been operationally defined and therefore the initial task of the In-Depth study is to define two aspects of CFRP treatment: services and activities, as well as interactions and processes.

Output variables are the services and activities produced in general by program effort (at the program level for all families in the Program Study) or obtained by specific families (at the family level for the In-Depth Study). Output and outcome variables are not the same. Output variables, for example, are meetings, home visits, immunizations, etc.--things received by families or provided by CFRP which can be counted. Outputs are important in identifying the pattern or emphasis of services in a particular project, whether direct, referral, group or individually oriented. They are also an important way of determining individualization.

Process variables may be of two types. First, there are those which refer to the transactions between staff and family members with regard to:

- the assessment and development of a program plan with each family;
- the nature of staff activity with families--i.e., categorized as primarily instrumental (doing things for the family), affective (listening or talking with the family) or a mixture (a home visitor teaching about child development)
- the functions and responsibilities assumed by staff and family in obtaining services or carrying out plans.

Second, there are process variables that represent both program activity in community advocacy and service coordination, and activity in defining and maintaining the program itself. This last category includes setting goals or priorities for the program, maintaining staff communication and support, and arranging training and career development for staff.

A preliminary list of variables in each category is displayed in Figure 2.3; a guide to the studies in which variables will be used and the data collection instruments from which they will be drawn is included as Table 2.2.

Figure 2.3

SETS OF CFRP VARIABLES

INPUT

Family:
- Background (non-changing)
- Status
  - Family Unit Maturity
  - Income and Employment
  - Health
  - Relations with family, friends
  - Relations with community

Staff:
- Characteristics
- CFRP philosophy
- Goals for families

Program:
- Availability of special staff
- Local goals and priorities
- Resources available to individual families
  - Parent Training
  - Age-related: Infant-Toddler, Head Start, Preschool Linkage
  - Crisis Intervention
  - Help with basic needs
  - Social Activities
  - Help with Assessment and Planning
  - Child development services and care
  - Health Services
- Advocacy and change at community service level

Community:
- Demographic profile
- Employment opportunities
- Resources available to CFRP
- Staff available to CFRP

ACYF:
- Guidance to CFRP implementation

OUTPUT (SERVICE DELIVERY)

Family:
- Attendance
- Home Visits kept
- Home tasks completed
- Participation in activities
- Responsibilities fulfilled
- Goals set, attained, not attained

Staff:
- Staff functions
- Output per family, aggregated for all families of a particular staff
- Training and continuing education
- Satisfaction with own work, with family progress

Program Activities and Services:
- Services delivered to families
- Number of families enrolled
- Number of families served "as-needed"[1]
- Length of time families are served
- Intensity of service to families
- Counts of services provided directly or through referrals:
  - immunizations
  - screeningsns
  - prenatal health care
  - enrollment in social service programs (food stamps, welfare, medicaid)

- Meetings and activities of components (Infant-Toddler and Preschool Linkages)
- Home visits made
- Special events
- Coordination with community agencies
- Contacts with staff in schools, agencies, hospitals, etc.

- Community training accomplished

- Program maintenance activities:
  - training and career development
  - supervision and support
  - goal setting and support

PROCESS (INDIVIDUALIZATION)

Family:
- Family members involved
- Assignment of responsibility for activities/goals
- Expectation of program
- Family goals

Staff:
- Expectation for families
- Staff goals and preferences
- Match with family

Program Processes:

Activities
- Individualization
- Assessment and goal setting
- Staff-family relationship and congruence
- Family Independence

Variables
- Staff and family involved
- Content of activity
- Techniques or methods
- Nature of contact
- Frequency of service
- Family input and agreement
- Family and staff satisfaction

Community: Identified needs for service in community

Program Maintenance:
- Staff involved in supervision
  - Frequency
  - Methods
  - Performance evaluation
- Staff or institutions providing training
  - Needs assessment
  - Methods
  - Frequency
  - Incentives

OUTCOME

All Families (CFRP and non-CFRP):

- Family Circumstance
  - Demographics and SES
  - Family Unit/Configuration

- Maternal and Child Health
  - Family Health Status
  - Family health care
  - Birth Circumstances: baby, mother

- Parent-Child Interaction
  - Parent childrearing style and expectations for development
  - Expectations/goals for children
  - Infant temperament and parent response
  - Confidence/efficacy in being a parent

- Child Development and Achievement
  - Cognitive development
  - Social competence

- Capacity for Independence
  - Use of Community Resources
  - Affiliation
  - Physical isolation/mobility
  - Contacts with family and social network
  - Availability and use of support in raising children
  - Locus of control
  - Coping strategies

CFPR families:
- Attainment of goals and services as identified by parents and staff
- Satisfaction with CFRP experience

CFRP Projects
- Helping families attain goals and obtain services
- Delivery of services in relation to local project goals and CFRP guidelines

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[1] Some sites are now offering "as-needed" services to families on waiting lists or in Head Start who need services they can provide.

As shown in Table 2.2, the data collection schedule for the first year of the CFRP evaluation will utilize several data collection instruments. the Program Study data base will be formed from information gathered at all 11 sites. The In-Depth Study data base will contain additional information about CFRP familes gathered at six sites, and the Impact Study data base will contain information gathered from both program and comparison families at six sites. The data collection procedures include interviews with CFRP directors and program specialists (Infant-Toddler, Preschool Linkage, Health), CFRP staff, and parents from both CFRP and comparison families. In addition, staff background, program records, child health, family review, and family goal attainment forms will be completed periodically; child birth and community census information will be gathered once. Finally, discussions with community leaders and local agency staff will provide descriptive background material.

Table 2.2

Year One Variables and Data Sources

				Input Variables (All Studies)					Process Variables (Individualization) (In-Depth Study)			Output Variables (Service Delivery) (In-Depth and Program Studies)		Outcome Variables (In-Depth and Impact Studies)						
Interview Respondent/ Record or Form Title	Study	Number of Sites	Period of Data Collection	Family Background	Staff Background	Program Characteristics	Community Characteristics	ACYF Involvement	Family	Staff Operations	Program Organizations	Family	Program Involvement	Goal Attainment	Family Circumstances	Family Health	Child Status/ Achievement	Parent/Child Interactions	Capacity for Independence (Coping, Affiliation)	Project Outcomes Individualization Independence Meeting local goals
Census Data	ID;P	11	Once				x													
CFRP Director	ID;P	11	Yearly		x	x	x	x			x									x
Infant-Toddler Specialist	ID;P	11	Yearly		x	x	x	x			x									
Preschool Linkage Specialist	ID;P	11	Yearly		x	x	x	x			x									
Health Specialist	ID;p	11	Yearly		x	x	x	x			x									
Staff Background	ID;P	11	Yearly		x															
Staff	ID;P	11	Yearly/Twice a Year			x				x	x		x							x
Program Records	ID;P	6	Twice a Year		x				x	x			x		x					x
Family Review	ID	6	Twice a Year						x			x	x		x					x
Goal Attainment and Parent Participation Form	ID	6	Three Times a Year						x			x	x	x	x				x	x
Parent II (In-Depth)	ID	6	Twice a Year						x	x		x	x							x
Parent I (Impact)	IM	6	Twice a Year*	x								x		x	x	x	x	x	x	
Child Birth Record	IM-ID	6	Once*	x																
Child Health Record	IM-ID	6	Yearly*												x	x				
Child Social/Cognitive Tests	IM	6	Yearly Beginning at Preschool Age*													x	x			

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*Program and comparison families.

2.2 The Descriptive Program Study

2.2.1 Overview and Justification

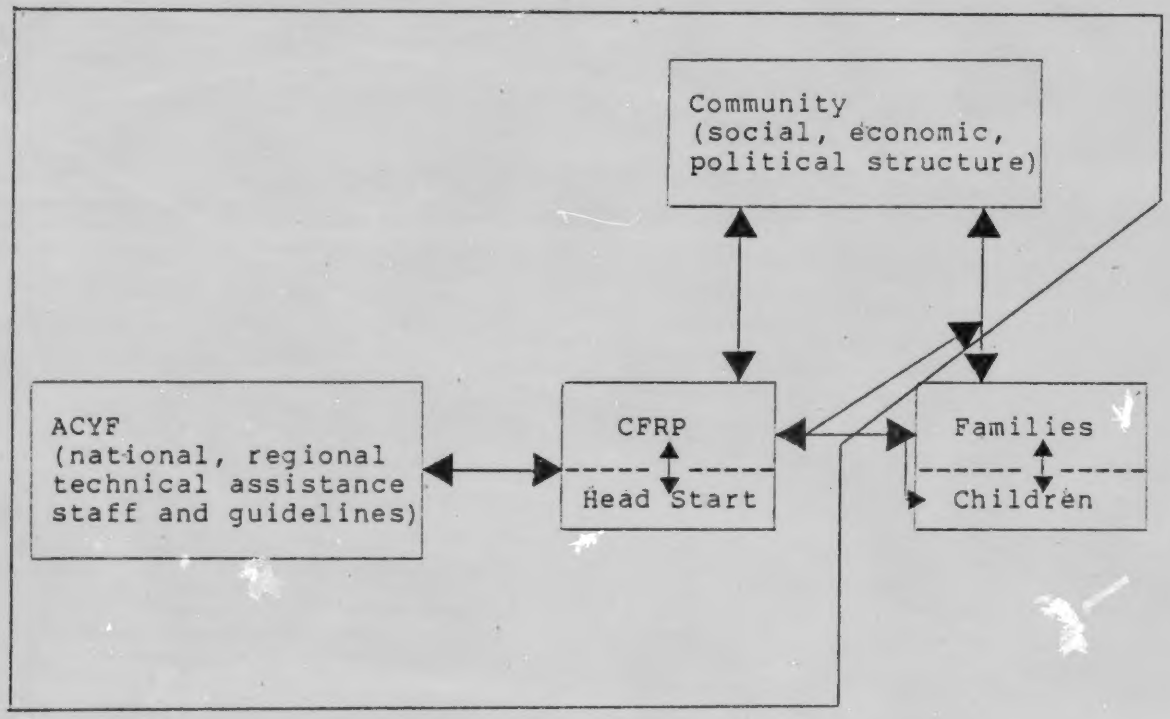
The broadest component of the CFRP evaluation is the Program Study, a descriptive study of the 11 sites. This study will record the community context for each CFRP, the types and number of families served, and the organization and activities of the CFRP. The primary objectives of the Program Study are to describe how CFRP has developed in response to (1) community demographics and resource patterns, (2) the characteristics and needs of eligible families, and (3) guidelines and directions from national CFRP Directors, Training and Technical Assistance staff, and the demands of the evaluation. The central focus of the program study is a description of the organization and characteristics of each CFRP, its staff and families. Also, the communities and Head Start grantee operations will be described and interactions and influence upon CFRP operations will be summarized. As indicated in Figure 2.4, the program study will describe the components of the CFRP model and the composition of the interactions among certain components (ACYF-CFRP, community-CFRP, families-CFRP). A detailed description of families and the process of CFRP-family interaction is not included in the Program Study, but will be the focus of the In-Depth Study (Section 2.3).

The Program Study has been included in the evaluation in order to provide a context for the findings from the more detailed In-Depth and Impact studies. The information from the study will be used to determine how the six In-Depth and Impact study sites are the same and how they are different from the remaining CFRP sites.

The study will provide a profile of how families are served in programs as they exist naturally. Community information from the Program Study will be used to examine the issue of possible duplication of services to families within a given community and to compare the demand for CFRP services

Figure 2.4

Focus of the Program Study


Community
(social, economic,
political structure)
ACYF
(national, regional
technical assistance
staff and guidelines)
CFRP
Head Start
Families
Children

with the demand for services of similar types within the community. The study will identify patterns of services and families served across the different CFRP settings and provide information for ACYF decisions about the broader implementation of CFRP.

2.2.2 Research Questions and Variables

The Program Study research questions cover a broad array of topics and will be addressed sequentially during the evaluation. The first year data collection will focus upon descriptors of CFRP models, communities and families in the six In-Depth/Impact study sites. Data in those sites will be collected during a one week site visit by AAI Cambridge staff. (In the remaining sites, information will be collected through telephone interviews, self-administered questionnaires, program records, and T&TA site visit reports.) Objectives for the on-site visit are to complete interviews with CFRP staff (directors and the component specialists for Health, Infant-Toddler, and Preschool-School Linkage Components), review site records and identify community agencies and staff that interact with the CFRP staff.

Research topics for year one include the following:

- Description of communities using information from national census and local record sources including demographics (population by age, etchnicity, density, and birth rate), socioeconomic stratification (income, employment rates, occupational types, housing characteristics), health service and educational resources in the community, and the identity and purpose of other community service organizations.
- Description of CFRP models from interview and records including program emphasis and objectives, organization and relationship to Head Start, type and number of services provided directly and through other arrangements (and descriptions of other arrangements).

- Description of internal CFRP processes including hiring, training, supervision, and evaluation of staff, recruitment and selection of client families.
- Description of staff perception of CFRP processes. The interviews will focus on staff views on individualization, assessment, and goal setting--how they are organized and how the processes are valued by staff.

In succeeding study years, the Program research will elaborate CFRP models, the links with communities, and the evolution and change in the CFRP organization and profile of staff, families, and services.

2.2.3 Analytic Plans

During the first year (and later years), projects will be described as completely as the data permit. Of primary interest will be the development of a series of dichotomous comparisons between groups of programs (e.g., primarily direct service programs versus mixed direct and indirect or coordinated service programs). These comparisons will serve two purposes, beyond that of simply "describing the sample":

- they will help guide more detailed but still exploratory analyses in the In-Depth Study, where interesting contrasts appear; and
- if any striking or provocative differences appear (or fail to materialize where expected), then hypotheses for investigation in future analyses may be suggested.

Consider, for example, the degree of reliance upon paraprofessional (e.g., former CFRP parents) versus professional (e.g., degreed or certified caseworkers) staff. It seems reasonable to expect that staff characteristics will influence the kinds of services offered as well as reflect possible differences in philosophy about CFRP's role in the community.

2.3 In-Depth Study

2.3.1 Justification for the In-Depth Study

The In-Depth Study will explore relationships of enrolled families to the CFRP and to the community. It is designed to relate variation in CFRP-family interaction and service patterns to change in five outcome categories (family circumstances, maternal and child health, parent-child interaction, and child development/achievement) and capacity for independence.

The major objective of the In-Depth Study, to associate aspects of CFRP treatment with outcomes for families, has one primary justification: ACYF's need for information on which to base policy decisions about future models for Head Start. A body of research about parent and child development programs exists; it includes evaluations funded by ACYF's own research and evaluation branch (of Home Start, Parent Child Development Centers, Parent Child Centers, and CFRP implementation, for example) as well as evaluations conducted by program practitioners such as Weikart, Levenstein, Gray and others (Goodson and Hess, 1977). There is considerable evidence that ACYF has used findings from these research efforts in developing new program models (like CFRP), or in defining program guidelines or further research (Datta, 1977; Collins, 1977; and Hertz, 1977).

The selection of variables for examination in the In-Depth Study is based in part on this body of previous research and in part on elements of CFRP required by the Program Guidelines. The Guidelines express goals of CFRP philosophy of treatment, many of which have never been operationalized for purposes of evaluation. These elements include individuation, family independence, and services to families rather than to children or mother and child pairs, for example. A good deal is known about these CFRP elements for individual projects through the site visits and records of the National CFRP Director's Training and Technical Assistance staff (Dingle Associates, 1977). This information, however, is available at the program level only. It has not been collected at the family level and has not been used to assess program operation except to provide Training and Technical Assistance to individual projects.

Influence of previous research on the selection of variables for the In-Depth Study is of two types. One is in the identification of specific variables that have been shown to be associated with outcomes for families in other studies. In the Home Start evaluation, for example, the number of families for which Home Visitors were responsible was related to some outcomes for families. Staff age and time on the job affected the focus of their home visits, while years of education did not. Staff and program operations variables such as supervision and training have been identified for examination in this study because they were important in other, similar programs.

A broader influence from previous research is the awareness that it is difficult to relate specific program elements to outcomes for families. In a review of parent education program research, Goodson and Hess (1977) caution that "it is easier to produce effects in intervention programs than it is to identify factors which contribute to success" (p. 75). They speculate that factors such as the social reinforcement of participating in a program, the commitment of staff involved in an experimental program, and the relative importance of parents in determining the program experience may be as important as the general curriculum employed in the programs they reviewed. The In-Depth Study focus on the CFRP processes acknowledges the importance of broad program features in addition to the general content or structure of parent education classes or home visits. These and other broad features of CFRP such as the relative effectiveness of professionals and trained non-professionals in providing services, support or education to families will be addressed in the In-Depth Study.

It is important to note that the In-Depth Study is the heart of the CFRP evaluation as it will define and explore relationships among all four sets of variables: input, process, output and outcome. As a result the discussion of research questions and variables for this study is complex and the most lengthy in this report. Variables and questions have been organized by type to facilitate presentation. However, it is unwise to oversimplify the complex questions and relationships which are to be addressed in the In-Depth Study.

2.3.2 Overview

The In-Depth Study will be conducted in the six summative sites where samples of families recruited to enter CFRP in fall 1978 have been drawn. A total of 100 to 120 families were recruited in each site; 40 families were randomly selected for entry into the program (treatment group) and the remaining were placed in a comparison group. The focus of the In-Depth Study will be on the 40 families selected to enter CFRP in each site and the CFRP staff who work with them. At the beginning of the second study year, an additional 10 families from each of the six sites will be selected for in-depth study. All of the newly selected families will have a child entering school in the fall of 1979 and will be involved with the Preschool-School linkage component of CFRP.

The In-Depth Study has three basic tasks:

1. Identify and define variables which characterize the 40 sample (eventually 50) CFRP families and the staff who work with them in CFRP.

2. Identify and define variables which characterize two aspects of treatment in CFRP: processes and service delivery. Processes include individualization, assessment and goal setting, family-staff relationship and congruence. Service delivery includes mix of services, staff functions, and project maintenance activities such as training and supervision.

3. Explore relationships among sets of variables: a) among processes, services and background characteristics of families and staff; and b) among processes, services and outcomes for families and programs. Outcomes for families include changes in:

   Family circumstances
   Maternal and child health
   Parent-child interaction
   Child status and achievement
   Capacity for independence

   Goal attainment (for CFRP families only)
   Satisfaction with CFRP (for CFRP families only).

The In-Depth Study is a bridge between the Program Study and the Impact Study. Hypotheses or findings about CFRP identified in the In-Depth Study can be applied, if not replicated, on a more general level in the Program Study; findings from comparison of treatment and control groups (Impact Study) can be better understood by use of the examination of CFRP process and outcome in the In-Depth Study. In short, there are two major uses for the In-Depth Study data:

1. Develop and test hypotheses about the relationships among staff and family characteristics, CFRP processes and outcomes for program and families which can be tested in subsequent years of the evaluation

2. Explain the results of Impact Study comparison in terms of CFRP processes

With information about how CFRP treatment is related to outcomes for families, we may be able to explain differences observed in the comparison of treatment and control groups and to understand a failure to find differences in some areas of outcome. Information on the relationship of CFRP treatment to outcome will be used by ACYF in making decisions about broader implementation of CFRP models or features.

During the first year of the evaluation, analysis of In-Depth Study data will be limited to the definition of variables and the development of staff, families and service typologies. An exploration of preliminary relationships among variable sets will also be completed. A full exploration of relationships between treatment and outcome must be based on patterns of outcomes that will only be available when outcome data has been collected at several time points.

2.3.3 Research Questions and Variables

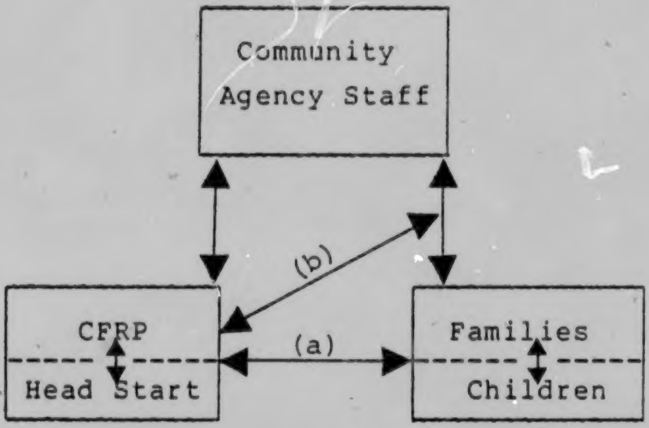
Broadly speaking, the tasks of the In-Depth Study are to define variables concerning background, CFRP treatment, and outcomes and then explore the relationship among them. Background and treatment variables to be defined are represented in the Figure 2.5 below in which characteristics are designated by boxes and interactions by arrows. Arrows representing a) interations directly between CFRP and families and b) CFRP's influence on the family's interaction with community resources depict interactions of particular interest in the In-Depth Study.

Background Variables

Background characteristics of families and staff will be collected for the sample CFRP families and staff in greater detail than for the Program Study. Identification of families

Figure 2.5

Characteristics and Interactions of the In-Depth Study



and staff characteristics and of CFRP operations will enable the evaluation staff to develop typologies of staff, families and program structures. The typologies will eventually be used to associate staff, families and CFRP models with specific services provided and with patterns of outcome for families and programs.

Sample questions about staff and family background will include:

- What types of families are enrolled in CFRP?
- What types of staff work directly with families in CFRP?
- How many families are CFRP staff involved with at a single time?
- How are staff backgrounds related to the family characteristics or at entry to CFRP?
- How are staff background variables related to family background variables (age, race, education, experience)?

In the process of developing a typology of family characteristics, particular attention will be devoted to identifying patterns of variables which indicate circumstances of relative strength and stress for families at the time they enter CFRP. Families may then be categorized into subgroups based upon these patterns and future analyses by subgroup may then identify services and/or outcomes associated with circumstance of strength or stress. The definition of variables reflecting strength and stress is discussed with regard to outcomes in the last pages of this section.

CFRP Treatment Variables

As previously discussed, CFRP treatment variables are of two types. One is process which includes individualization of CFRP, assessment and goal setting, family-staff relationships and congruence, and family independence. The other, service delivery (output), includes mix of services, staff functions and project maintenance activities such as supervision. Each type of treatment is discussed separately below although they are closely interrelated in CFRP.

Process

Individualization of service for each family is the core of the CFRP concept. The assumption underlying individualization is that families have different needs and strengths and that a CFRP strategy for working with each family must be built upon those unique needs and strengths. This is an assumption currently shared by policymakers at ACYF and program staff in CFRP. However, the concept of individualization has not been clearly defined in terms of measurable variables nor has the assumption been tested that individualization is more effective in serving families than providing a standard set of activities and services.

Sample research questions concerning individualization are:

- How do family goals relate to level of CFRP involvement?
- How do family goals change over time?
- How do service configurations change over time?
- How are activities individualized in the Infant-Toddler program?

During the first year of data collection, the evaluation will examine individualization and develop a definition of the concept by using both process and output variables: the mix of family participation in services and activities; the identification of goals by staff and family; the division of responsibilities for obtaining services between staff and family; and the mix of direct and coordinated services used. In addition, the first year study will identify additional variables to be used in developing the individualization construct.

Since families may stay in CFRP for different lengths of time and at different levels of participation, the notion of individualization must eventually include services and participation over time as well as the pattern of services and activities at any one time. It is also important to realize that individualization can only be identified by comparing patterns of service by family and staff function. Sites will be expected to vary in patterns of individualization observed for their sample families.

Assessment and Goal Setting is one of the most distinctive features of CFRP; the national CFRP Program Office issued a guidance paper to help staff develop methods of conducting this important process. In some sites, an assessment period may take several weeks with most of the planning done by a single CFRP staff person and parents;

staff members may use other CFRP staff as consultants in planning services the family wants but the family's primary contact is with a single staff member. In other models, after an initial period for family and staff to get acquainted, the family meets once or more with a selected team of staff, for example, a classroom teacher, a home visitor who will work with the family and an advocacy staff member who will be responsible for helping the family with social services. Among the research questions regarding assessment and planning are these:

- Which staff and family members participate in assessment?
- What assessment tools or instruments are used?
- What is the division of responsibilities for services and activities between staff and family members?
- How comfortable is the family with the process?

Staff-family relationship and congruence refers to the similarity of staff and parent views about childrearing, family life and participation in CFRP. Several categories of congruence will be investigated in the In-Depth Study. They include congruence regarding:

- child-rearing style and the importance of household members and family in child care;
- perceptions of infant temperament and mother-infant interaction;
- family assessment and goal setting in CFRP;
- expectations of CFRP participation and the staff-family relationship; and
- locus of control

Some of these categories are similar to categories of outcome for families. In this discussion, however, the variables of interest are the similarities of staff-family views and not the views themselves.

There is little agreement on the importance of staff-family congruence in research literature about programs or care arrangements for parents and children. Emlen (1972), studying family day care systems, concluded that congruence between parent and caregiver was not related to satisfaction and that some difference of opinion seemed to be associated with stable care arrangements.

Informal conversations with staff and families in the Home Start evalutaion suggested that congruence was important in parent perception of the program.

Goodson and Hess (1977) suggest that parents' perception of the relevance of the program activities and a one-to-one relationship between parent and a staff member is associated with greater gains for parents in some programs.

Sample research questions include:

- What views about child rearing are promoted by CFRP and how are they transmitted? How are they similar/different from those held by families?
- What expectations are held by parents with regard to the CFRP staff responsibilities?
- How are parent and staff views about staff-parent responsibilities related?
- How is congruence on locus of control related to the mix of direct and indirect services obtained by families?

Underlying CFRP are assumptions that are potentially contradictory, depending on the attitudes and perceptions of parents and staff at each local CFRP level. CFRP is expected to respect diversity of values in regard to child rearing, family life and community services. Yet individual projects can and do express values from the staff as individuals and from the program as a whole in the way the staff work with families and community agencies. The issue of whose values are being emphasized and whether values and behaviors are changing as a result of CFRP is an important one in this evaluation. It is expected that basic agreement between staff and parent about mutual expectations and the family's participation in CFRP will be important in the family's satisfaction with the program and in the staffs' perception of their effectiveness in working with families.

The degree of congruence will be examined in the above categories, then related to staff and family background variables, to CFRP treatment, and to family and program outcomes. For example, congruence between staff and families on measures of locus of control will be related to patterns of direct or indirect services, to satisfaction with CFRP, and to the staff's perceived effectiveness with families.

Family Independence is related to all aspects of CFRP treatment. Both national and local CFRP staff recognize within CFRP the potential to foster dependence on social institutions and professionals to the neglect of personal and social resources ordinarily available to families. Thus, one evaluation objective is to define measures of dependence/independence so that the degree of independence in families participating in CFRP can be assessed.

Output

CFRP Services and Activities is an important aspect of CFRP treatment. Families and projects are expected to differ in the pattern of CFRP participation encouraged and desired. Families are likely to participate in different program activities with different intensity as family needs and goals change; projects will offer different sets of activities depending on their local resources and the needs of families.

Sample research questions concerning services and activities in CFRP include:

- How is health education typically provided?
- How is parent education typically provided?
- What service configurations are typical with single child families?
- What service configurations are associated with specific CFRP staff?
- What is the mix of direct and indirect services provided to families?

CFRP can deliver services and activities in two ways:

1. CFRP interacts directly with families through parent classes, child care, home visits, assessment and goal setting, and social activities
2. CFRP influences indirectly the family's interaction with the community by providing information about services, identifying strategies for obtaining better service, and facilitating attitudes toward increased parent control of things that affect family members

It is expected that CFRP programs will differ by site in their relative emphasis on providing services directly or indirectly to families. The relative emphasis on direct and indirect services is likely to be related to the availability of resources in a particular community, the capabilities and training of CFRP staff, the goals of the program in regard to parent independence, and other factors. The mix of direct or indirect services is likely to be an important variable in defining different CFRP models across the six summative sites.

Staff functions refers to the type of service or interaction staff members provide to specific families. Functions expected to be common across projects include staff responsible for direct health or other special services, for visiting in the home, for teaching parents or children in a center setting, for acting as a social service adocate for families. Certain staff functions may be provided to the family at particular times in their CFRP experience; for example home visits may take place only in the family's first year of CFRP participation.

Staff functions must be defined in relation to each other as well as in relation to a particular family. It will be important to know how staff with different functions coordinate their efforts on behalf of a particular family.

Project Maintenance activities are those which are crucial to smooth project operation for staff but which do not directly involve families for the most part. Such activities include project planning, staff supervision, training and career development. Evaluations such as the Home Start Program Study suggested that the conduct of such activities may have direct effects on the performance and morale of staff, especially those who work most closely with families. It is important to know the frequency and purpose of these maintenance activities as well as staff perceptions of them.

A few project maintenance activities may involve parents such as project planning and refunding, recruitment of new families, evaluation, and policy making. Information on frequency, purpose and perception of the activities will be collected.

Project Treatment Variables: Once variables of processes and outputs are defined for specific families in CFRP, these variables can be aggregated for a profile of process and output; that is, a profile of CFRP treatment for each of the six summative sites. Profiles of aggregated data may then be used to further refine program typologies and explore the relationships of patterns of outcome to patterns of treatment.

Outcomes for CFRP Families and Projects

Ideally, the selection of outcomes to be examined in the Impact Study would be based on a model of family development or functioning that could be related or incorporated into the model of how CFRP affects families. While research on families has been conducted in clinical and social psychology and sociology, no single model of family functioning or development is readily available or appropriate for use in the CFRP evaluation. Models which feature family homeostatis (Jackson 1965), functions (Parsons and Bales, 1955) or roles (Billingsley 1968; Kantor 1976) may provide useful insights, but none can be used alone as the theoretical basis for this evaluation.

In the absence of a single model, however, it is useful to make explicit the assumptions which underlie the selection of outcome categories for this evaluation. The first is that all families in CFRP and the study are affected by a common circumstance: poverty. Families may differ in their experience of and perception of poverty, but all will have been considered eligible for CFRP because of their low incomes. A second assumption is that there are stresses associated with poverty and that families will be vulnerable to these stresses no matter what their resources or strengths. Third, just as families may differ in their perceptions of poverty, they will differ with regard to their perceptions of the stresses associated with poverty. They will also differ in the capability to cope with these stresses. That is, low-income families are not assumed to be weak or deficient as child-caring systems because they are vulnerable to stresses of poverty. It is assumed that poverty affects the family's (particularly the parent(s)) abilities to secure the quality and quantity of services and goods they want for their family members. It affects directly the family's interactions with institutions and persons outside the home, and consequently, may affect directly or indirectly the family's internal relationships and status within the household.

The philosophy and guidelines of CFRP (to enhance the strengths of families as child-rearing systems) with emphasis on parent decision-making and the provision of support, appears to recognize the potential for stress within and outside of the low-income family.

The In-Depth Study will examine primarily outcomes for CFRP families that relate to their participation in CFRP. These include:

- Attainment of goals and services as identified by parents and staff;
- Satisfaction with CFRP experience.

In order to identify project-level outcomes for CFR Programs, outcomes for CFRP families will be aggregated at each project to construct project-level patterns of outcome which can be compared with locally identified service practices for each CFRP.

Outcomes for CFRP projects then, include:

- Helping families attain goals and obtain services
- Delivery of services in relation to local project goals and CFRP guidelines.

These outcomes for CFRPs are important in the evaluation as they provide information about whether programs are serving families in the ways they intend. Emphasis is placed on the programs providing services in line with priorities they have identified themselves and goals set with families.

The provision of services and support in CFRP is presumed to help families realize goals and meet needs of family members. It must be emphasized that attaining goals is an explicit objective of the programs, not necessarily of the families who participate in CFRP. It is our assumption that most individuals and families have life goals and plans but that individuals and families differ in the degree to which these life plans and goals are conscious, explicitly identified and perceived by individuals to be within their control. By requiring that staff conduct continuous needs assessment and planning for individual families, CFRP endorses the value for staff of setting and attaining explicit goals. Therefore, it is necessary to know whether families achieve goals and obtain services in an assessment of the program's effectiveness in helping families.

Goal attainment and service delivery were discussed earlier in this section as important aspects of CFRP treatment. When used as outcomes, however, the variables concerning goal attainment and service delivery represent measures of the extent to which goals are attained and services provided.

2.3.4 Analytic Plans

Both simple and sophisticated analytic techniques will be used in the In-Depth Study. The descriptive tasks outlined in 2.3.3 will follow the analytic plans described for the Program study; the difference between these two studies, descriptively, is that more detailed information will be available here, and it will be available for families and staff rather than at the program level only. As part of this descriptive effort, abstract constructs (e.g., "affiliation") and other variables (e.g., SES) will be empirically developed; typologies of families and of services will also be constructed. These analyses are discussed further in Chapter 3.

The major thrust of the In-Depth Study, however, will be the exploration of, development of hypotheses about, and testing of relationships between sets of variables--inputs, process, outputs, and outcomes. Initially, this will entail much data exploration; techniques employed will include examination of bivariate relationships (scatterplots, measures of association) and estimation of preliminary models of relationships between these sets of variables (multiple regression, discriminant functions). Ultimately, models of relationships between variables will be of primary interest, and robust estimation techniques will be employed (Mosteller and Tukey, 1977).

2.4 The Impact Study

2.4.1 Overview

The Impact Study will be conducted in the six summative sites where new samples of families have been recruited to enter CFRP in fall 1978. A total of 100 to 120 families were recruited in each site; 40 families were randomly selected for entry into the program and the remaining families were placed in a comparison group. Table 2.3 gives characteristics of families participating in the study.

The Impact Study is designed to compare families enrolled in CFRP with families not enrolled in CFRP. Five outcome categories have been identified for the Impact Study. They are: (1) family status and circumstances, (2) maternal and child health, (3) parent-child interaction, (4) child status and achievement, and (5) family capacity for independence. During the first year of the CFRP evaluation, baseline information will be gathered for both CFRP and comparison families, including data on the kinds and frequencies of services being used, and data in all five outcome categories, through parent interviews and child birth records. Analysis of the resulting data base will test the assumption that the two groups of families are equivalent at the beginning of the study. In later study years, the Impact Study comparisons will provide tests of the effectiveness of the CFRP process in producing change in the outcome categories.

The Impact Study attempts to verify an impact due to services delivered by CFRP. The ability to perform this study is enhanced to the degree that goals of a program are clear, explicit, and translatable into measurable quantities, i.e., to the degree that outcomes can be reliably assessed.

Table 2.3

In-depth Study Sample

	Parents		Children			
	Age Range (Years)	Percent Teenage	Percent First Child	Ethnic Percentage Black	Hispanic	White
Jackson, Michigan	16-35	48	58	30	3	63
Las Vegas, Nevada	14-37	68	100	60	5	23
New Haven, Connecticut[a]						
Oklahoma City, Oklahoma	15-40	38	55	85		10
St. Petersburg, Florida	15-42	45	40	100		
Salem, Oregon	16-33	37	49		5	90

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[a] Sample not yet selected

Much of the early effort in this evaluation will be expended in establishing both process and outcome variables that can be used in rigorous statistical analyses.

2.4.2 Outcome Variables

Each of the five categories of outcomes to be studied comparatively between CFRP and non-CFRP families represents a set of interactions or circumstances that may be seen or experienced by families as a source of strength and/or stress. Outcome categories selected to reflect both the family's internal and external functioning, are shown below.

Comparative Outcomes for Families

- Family circumstances (income, employment, etc.)
- Maternal and child health
- Parent-child interaction
- Child development and achievement
- Capacity for independence, including: use of community resources, affiliation with family and social networks, use of support in child-rearing, locus of control, (parent), coping strategies

Each of the five outcome categories represents a distinct conceptual domain, based on body of theoretical and research literature in social or clinical psychology or sociology. As the evaluation progresses, constructs will be developed within each of the categories, based on literature and research in these fields. Presently, however, each of the categories represents a set of dependent variables organized as conceptual areas. The categories are represented by specific items in data collection instruments to be used this fall. However, the constructs within these categories cannot be considered empirically useful until data about CFRP and families have been analyzed and constructs refined. Definition and refinement of constructs are primary tasks for the first-year analysis (see Section 3), and constructs are expected to undergo substantial refinement as the study progresses.

Four of the five outcome categories concern the internal family unit. Children's development-achievement will not be measured until infants entering the evaluation in fall 1978 reach Head Start age in 1981-2. For the other three categories, data collected in the first year will serve as descriptive baseline data, and will be analyzed in the first year to assess equivalence of CFRP and non-CFRP families, and to establish baseline for measurement of change in individual CFRP families. In later years, hypotheses will be tested that change for CFRP families will be greater than for comparable families without access to CFRP services.

Family circumstances. The goals of CFRP are designed to foster strength and independence in families. This outcome category refers to direct indices of family social and economic strength such as family membership; the number of and relationship between available caregivers; housing; employment status and employment history; and income and sources of income. Progressive changes in family circumstances will likely be related to the establishment of CFRP goals in this area. Moreover, changes in family circumstances are likely to occur or be observed only over several years.

Maternal and Child Health. While health services are more readily available to low-income families than they were a decade ago, the health and dental status of young children and prenatal care for pregnant women are still issues of concern in this country. CFRP potentially has greater leverage than many other federal programs to affect the health status of children and families. CFRP is comprehensive; services are provided in conjunction with a broad range of other remedial and developmental services to families. CFRP emphasizes prenatal involvement and is continuous, extending from prenatal medical care for pregnant mothers to preventive and treatment services for children up to 8 years of age. While enrolled in Head Start, children are present in the center on a daily basis. Baseline information on the health status and continuing health condition of CFRP and comparison families will be gathered during the first year via parent interview, child birth records, and CFRP record reviews.

Parent-Child Interaction and Child Development and Achievement. One of the primary goals of CFRP is "to enhance and build upon the strengths of the individual family as a child rearing system." There is a clear expectation that CFRP will have a positive impact upon parent-child interaction and that in turn the achievements of children from CFRP families will exceed those of children who are not provided with CFRP services.

The evaluation assumes that outcomes for children will be mediated through the family and may also be associated with participation in group activities in CFRP. During infancy, child status measures will include both birth record information and infant health information. When children enter preschool (all infants in the current new sample are expected to enter Head Start in 1981-2), measures of cognitive skills will be collected. That information will provide the first basis for an investigation into differences in the achievement of children in the two groups. Tests to be administered at that time will be selected during Year Two of the evaluation. Additional tests of children will be administered at entry into public school or kindergarten and possibly following the completion of the first grade.

Parent-child interaction over the years will be expected to change for CFRP parents in three areas: (1) parent knowledge of child development and individual needs; (2) mother's and child's affective status to be more consistent and less problematic and (3) increase in the quality and quantity of positive responsive interaction with child. Outcomes in these areas, particularly parent-child interaction, cannot be studied reliably through parent report alone; thus, measures other than the parent interview will be investigated for use in subsequent years of the evaluation. However, information about the mother and infant's affective states and about parents' knowledge of child development will be collected during the first year. Maternal perceptions of infant temperament, child-rearing practices, and child-rearing expectations will be gathered during this time.

Items concerning infant temperament and parent response were based upon the items developed by Chess and Thomas (1962) and Broussard (1972). These items are considered as an indication of parent comfort with the demands of caring for an infant. They are intended as a rough indicator of the infant's behavior and temperament as perceived by parent. Child-rearing practices and expectations for child development were modified from the Maternal Attitude Scale of Cohler, Weiss and Grunebaum (1970).

The fifth category of comparative outcomes, Capacity for Independence, represents the family's functioning in a broader social and community context, including relationships and interactions with extended family members, social institutions and agencies such as schools and health care facilities, community groups and resources, and friends. This broad category of outcomes includes:

- Use of community resources and services;
- Affiliation with family and social networks;
- Use of support in child rearing;
- Locus of control;* and
- Coping strategies.*

These conceptual areas indicate that independence is not a specific behavioral outcome, but a complex outcome inferred from several interacting behaviors. Thus, each of the conceptual areas deals with independence but represents a cluster of items from fall data collection instruments which tap different behaviors or feelings. Accordingly, independence is considered as a network of outcomes the essence of which is displayed in Figure 2.6.

In comparing the capacity for independence between CFRP and non-CFRP parents, it will be useful to know how behaviors and attitudes in the two groups reflect their interactions with individuals and institutions on behalf of their families. One important assumption is that individuals and institutions are available to assist low income parents with meeting needs of their families; either institutions or individuals, however, may have limited resources or be overburdened or understaffed with the result that parents do not get the quality of service or response they want.

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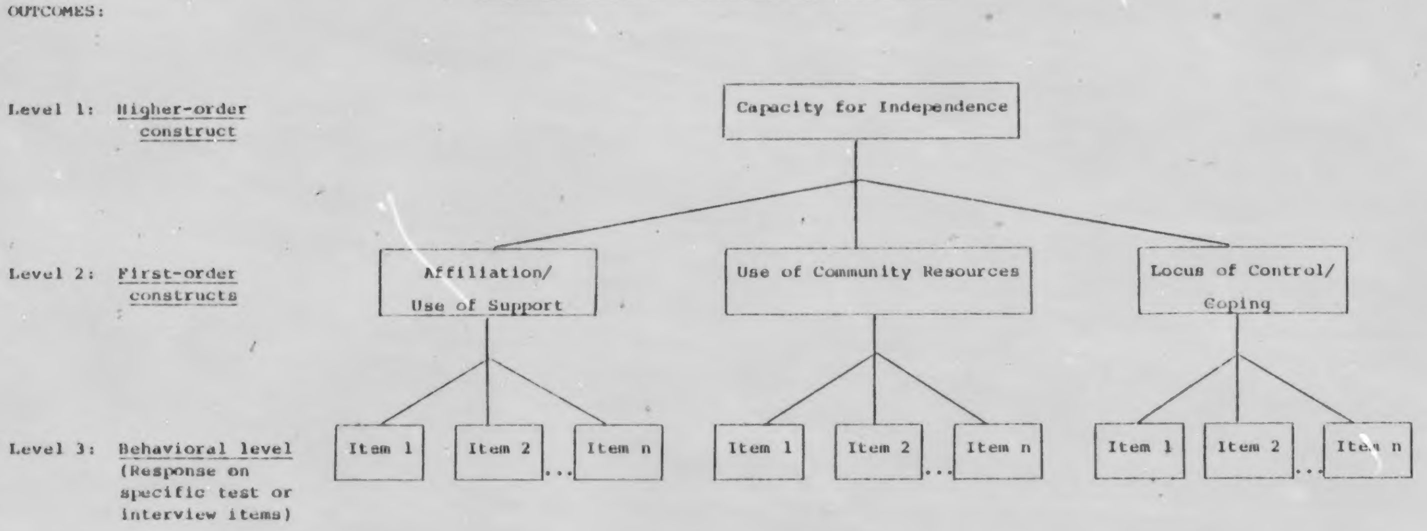
*Both coping strategies and locus of control are conceptually internal and external as they include interactions with persons and institutions outside the family unit as well as interactions of individuals with the family.

Figure 2.6
Sample Construct: Capacity for Independence


OUTCOMES:
Level 1: Higher-order construct
Level 2: First-order constructs
Level 3: Behavioral level (Response on specific test or interview items)
Capacity for Independence
Affiliation/ Use of Support
Use of Community Resources
Locus of Control/ Coping
Item 1
Item 2
Item n

Parental interaction with individuals and institutions may be characterized on several continua:

1. Avoidance vs. use of services and resources
2. Obtaining efficient, useful service or less useful, unresponsive attention
3. Level of satisfaction/dissatisfaction
4. Positive experience and feedback or negative experience
5. Greater initiative in seeking needed service or support
6. Better discrimination of appropriate service for need and ability to control interactions

Patterns of behavior and attitudes reflecting the above characteristics of interaction will require detailed data over time. First year data collection will supply a rough "map" of the family's service use and experience with selected common services (child care, health, schools); in subsequent years, more detailed data will be collected for service use and experience.

Two additional conceptual areas important to the broad category of "Capacity for Independence" are focus of control and coping strategies. In general, it is assumed that these two areas represent feelings and behaviors that indicate competence and willingness to deal actively with managing ongoing family affairs and solving problems. Locus of control is measured by attitudinal items and by questions about specific reponses to specific situations. Locus of control is defined as realistic appraisal of situation to best manage the expenditure of energy in dealing with the situation. Coping strategies are also measured by items about specific actions and are defined as the ability to respond to a situation (which may be to maintain equilibrium or improve the situation) and to avoid or resolve satisfactorily crisis situations. Use of coping strategies also implies the application of judgment and selection from among alternative strategies. Recent research and theoretical literature will be used to refine these constructs as empirical data become available.

2.4.3 Analytic Plans.

Analyses in the Impact Study will be relatively straightforward, due to the careful design of this study within each of the six participating sites. Primarily, given the experimental framework underlying this study, these analyses will test hypotheses concerning treatment effects (e.g., of differences of means between the two groups of families--see Appendix B). Analysis of covariance and multivariate extensions of the testing procedures will also be used. As time passes, differential attrition may become problematic (discussed in more detail in Chapter 3); if it does, more complex analyses, "adjusting" for that problem, will have to be considered.

3.0 ANALYSES OF FIRST YEAR DATA

3.1 Introduction

The first full year of program evaluation will be complete in February, 1979. Data collection for that period will consist of interviews conducted in the fall of 1978 with staff and parents (both program and comparison families). The focus for the remainder of the year will be on the analysis of that data.

Four analytic purposes will be served by the first year analyses:

- Instrument Review--determine and remedy administrative problems and information gaps;
- Typology Development--explore response relationships that might reveal conceptual patterns for families, staff, and service packages;
- Construct Development--examine relationships among responses, develop constructed variables and assess reliability of those constructs;
- Baseline Descriptions and Comparisons--describe the programs, staff, and families, the interactions between CFRP and families and compare CFRP and non-CFRP families on baseline characteristics and interview response patterns.

The remainder of this chapter presents techniques by which each analytic objective will be pursued.

3.2 Instrument Review

The evaluation of a social program is dependent upon the quality of the available data base. That is to say, the value to policymakers of the conclusions of any evaluation can be no greater than the confidence in those results permitted by the quality of the data. Quality will be controlled in the CFRP data collection efforts in three ways: 1) through careful selection and traiing of field staff; 2) through monitoring of field operations by both Abt staff and site research coordinators; and 3) through carefully developed data entry and checking routines.

For the CFRP evaluation, an interactive direct data entry (interview protocols to computer files) process will be employed. In this process, the number of both coding and punching errors are reduced in two ways. First, one step in the data computerization process (preparation of separate coding sheets) is omitted entirely. Second, programmed routines make predetermined range and validity checks at the time of data entry, and in turn prompt data entry staff to verify any apparently erroneous values.

3.3 Typology Identification

One focus of the first year analyses will be the identification of various types of families entering the CFRP and the different service "packages" available to them. Families will be grouped according to combinations of such things as family size, parents' ages and race, income, employment status, educational attainment, family members' health, relationships with family and social groups, and parent/child interaction patterns. A service typology will include variables like frequency of home visits, purposes of referrals (and extent of follow-up), kinds of services offered directly, and frequencies of direct service deliveries.

Families

In order to sort families into particular types, cluster analysis techniques will be employed (see Anderberg, 1973). These are particularly appropriate in a situation such as this where patterns are sought among a large number of units, each characterized by a number of variables. Cluster analysis is not a cut-and-dried statistical procedure, however, and its use will require considerable care.

To a certain extent, descriptions of families as clientele could comprise another component to the description of programs. For instance, one part of this description will compare families across the various projects.

Families will be considered separately from programs, however, to avoid any possible implication that programs provide the appropriate classifying scheme across which families should be compared. Potential ways in which families might be classified and compared include high versus low SES, big versus small families, new versus experienced parents, single-parent versus two-parent homes, and nuclear versus extended family households.

An unavoidable feature of clustering techniques is that their empirical solutions are nonunique, i.e., many different solutions can be obtained on the same set of data. Cluster analyses require some way of measuring the difference or similarity between the units being clustered, and the cluster solutions will depend to some extent on the particular measure chosen. Factor analysis poses a similar problem of nonunique empirical solutions (see Gnanadesikan, 1977). However, factor analysis at least has a "standardized" measure of association, the product moment correlation, whereas cluster analysis has none. Thus, a major step in any cluster analysis is the choice and/or specification of a proximity measure. In an effort to avoid overlooking any potentially useful results, a variety of such measures will be employed separately in this stage of analysis.

Another problem in cluster analysis concerns the choice of clustering algorithms, since cluster solutions may be algorithm-dependent. The choice of an algorithm or clustering strategy is rarely clear-cut. There are two broad categories of algorithms--hierarchical and nonhierarchical--with a variety of alternatives in each (see Enslein et al., 1977, Section IV). The selection of a particular algorithm is often as much a function of user convenience as it is of relevance to a particular conceptual problem. Thus, the final selection of distance measure(s) and clustering algorithm(s) must await initial exploration of the data.

In order to limit the magnitude of the data exploration required to type families, only half of the 40 CFRP families in each of the six experimental Impact and In-Depth sites will be used for the cluster analysis (N=120). The remainder will serve as a check on the adequacy of the adopted cluster solution(s).

A cluster analysis of families is necessary, in part, to avoid prejudging issues of family types and propriety of particular services for specific family types. [This may be viewed as maximizing the opportunity for serendipitous results.] It is difficult to suggest a "plausible" or hypothesized outcome of this clustering for just that reason. A useful example of such an analysis was reported recently, in a child abuse study (Kent et al., 1977). In that study, four family types were identified, each characterized by clinically interpretible and interesting configurations of values on important variables. Furthermore, the interpretations suggested different treatment strategies depending upon the family type as well as new directions for future research.

Services

The methods employed in identifying types and combinations of services available through the various CFRPs will not necessarily be as complex as those used in identifying family types. For the most part, data on staff and services for individual CFRP sites can be plotted and visually scanned for the purpose of discovering "clusters" within the data. However, should there be a wide variety in services delivered to CFRP families within each of the in-depth study sites, another cluster analysis will be completed. Such an analysis would parallel the analysis of families described above; its focus, however, would be on the patterns of services received by families.

The development of a service or service package typology, like the clustering of families, will help to avoid the use of any implicit, presumed notions of service packages. Further, a service package typology will simplify a search for relationships between family types and service packages.

Note that analyses designed to classify particular groups of families and of services are intended to be primarily first year endeavors. It is possible that the typologies or groupings adopted may be further refined or illuminated during successive data collection waves. The typologies of families and services will provide variables for use in future analyses. Depending upon the results obtained, a family typology could provide either a set of covariates (that is, such a typology could enable the "correction" of results according to family types) or an analytically useful subdivision of the entire sample of families. Similarly, a service package typology might provide either a set of independent variables or another set of distinct, important subsamples.

3.4 Construct Development

In addition to identifying types of families and service packages, analysts will examine relationships among responses in order to develop constructed variables (i.e., specific groups of variables that, when taken as a whole, can be used to measure general concepts such as "physical isolation," "maternal and child health" or "coping strategy") and to assess the reliability of those variables. Various analytic techniques will be used in the development of constrtucted variables. For items which have relatively few values (e.g., specific health status items), crosstabulations are appropriate for discovering relationships between the variables. Examination of scatterplots and matrices containing measures of association will also be used. For abstract constructs which have either a great many variables or many levels of response, principal components analyses will be undertaken. The result of this set of analyses will be the "best" measures of abstract concepts that can be maintained on the year one data base.

Thus several statistical techniques will be used to develop constructed variables: crosstabulations, examination of scatterplots and measure of association matrices and principal components analysis.

A final and equally important criterion for the selection of variables for construct development is their face value to informed analysts who are familiar with CFRP and the research issues. Some variables will be selected because they are known to be important either because they are expressed in the Guidelines for CFRP or because CFRP staff or evaluators have identified them from personal observation or experiences. The degree of participation by the parent in assessment, for example, is such an important face valid variable.

For example, consider the outcome "coping." In the first year parent interviews, a number of items (in three conceptually distinct sets) are used to assess "coping." The three sets are:

- "locus of control," consisting of a number of items concerning ability to control events generally, and with respect to specific activities related to child rearing;
- "confidence/efficacy" as parent, with a number of items adapted from other sources; and
- "support in raising children," including a number of items assessing availability and use of family, friends, adult "emergency" resource people for help in raising and caring for children.

Each item, perhaps, could be used in analyses of "coping," but it is clear that this would be an inefficient use of analytic resources: the number of analyses of "coping" to be done, assimilated, and synthesized would be multiplied many times over. If these items do assess an abstraction such as "coping," then many of the results would be somewhat redundant. Finally, since each item itself would be both less reliable and less valid as a measure of "coping" than would be some scaled variable made up of multiple items, an item-by-item analysis strategy runs undue risk of failing to discover interesting results. A scaling, or data reduction analysis strategy, then, is the best approach to measuring "coping," resulting in a single (or very few) operational construct(s) for use analytically.

A second set of analyses will be undertaken to determine which subsets of measures are the most useful to the evaluation. The purpose of this set of analyses is to develop useable scales that as a group do not have multicollinearity problems. The constructs ultimately derived must meet the twin requirements of anaytic utility and substantive interpretabiity. Analytic techniques to be employed here are essentially identical to those used to develop the constructed variables: crosstabulations, examination of scatterplots and measures of association matrices, and principal components analysis.

An example of this kind of measure development involves the construction of covariates, or variables to be used as "adjustments" in order to insure (to the extent possible) that analytic results are as free as possible of potential confounding effects. Frequently, in educational and psychological research and in program evaluations, socioeconomic status (SES) is just such a variable. In such cases, the "effects" (if any) of SES per se are of little or no interest. Nevertheless, SES may be correlated both with outcomes and with independent policy variables; SES, therefore, poses a "plausible" alternative explanation for many otherwise interesting results.

Since SES effects in and of themselves are of little interest, collinearity between a variety of SES indicators (e.g., parents' education, family income, occupational prestige) may be of little importance. But either collinearity of these variables with independent variables or a relatively small data set should give the researcher cause for concern--one way to minimize the problem of multicollinearity and/or the problem of "too many" covariates is to construct a single SES measure. One possibility is to use the first principal component of the matrix of correlations between SES indicators in order to inform decisions about how a single SES measure is to be constructed.

Initial estimates of reliability will be made for the empirical constructs developed in both of the above-mentioned sets of analyses. For those constructs containing multiple items, split-half correlations and an estimate of internal consistency (Cronbach's alpha) will be obtained. Variance components estimates will be developed where possible in order to estimate what proportions of variance in important measures can be attributed to various conditions of measurement (see Appendix A, Assessing Reliability).

It should be noted that results of classification analyses of families and services may condition the particular analytic strategies chosen in these sets of analyses. Useful family typologies may suggest the possibility of differential patterns of association between variables within family types. If this is the case, the differential patterns must be taken into account during the data reduction and construct development analyses.

3.5 Baseline Description and Comparisons

Program and service descriptions provide an absolutely essential basis for the CFRP evaluation, since a thorough understanding of program structure, staffing and services must shape all further analysis. Likewise, a comprehensive description of the families enrolled in CFRP is needed to lay the groundwork for future comparisons.

In compiling the program descriptions, the relationships between the individual CFRPs and other agencies in their community will be examined, as will the relationships among local, regional and national CFRP and Head Start agencies. The internal structure, formal policies and staffing patterns will also be described. The results of these particular examinations will generate an understanding of the context in which the individual projects operate. In addition, the way in which services are delivered by individual projects and for CFRP as a whole will be analyzed. Baseline descriptive questions about CFRP projects include the following:

- What is the CFRP-Head Start organizational structure?
- How does the CFRP fit into the regional ACYF organization?
- What is the overall case load for CFRP staff?
- What is the background, training, and education of CFRP staff?
- How are staff hired, trained, supervised?
- What are the programs' yearly turnover rates?
- What services are available through CFRP, either directly or by referral?

Without a full understanding of the nature of the various programs and the families enrolled in them, some risks are taken:

- analyses may pursue questions that at best are tangential to the concerns of the policymakers;
- other analyses of varying importance and interest to the policymaking and service delivery audiences may be inadvertently overlooked; and
- regardless of the value of any finding arising from this evaluation, its credibility (hence its potential impact) may suffer badly if it does not communicate a sense of understanding of the multifaceted and complex nature of the CFRPs' day-to-day functioning.

The major problems to be faced in these descriptive analyses are those of data organization, synthesis and presentation. In part, the organization process has already begun with this report. The classification analyses will also aid in the organization of the data. Nevertheless, organization and synthesis of the tremendous mass of data that will be available remains the largest and most difficult task in these analyses.

However, unlike other analyses (construct development, for instance), the specification of research questions is not particularly difficult: how do programs and families compare across sites? Also, unlike other analyses (e.g., classification), the choice of techniques for description is not problematic: measures of central tendency and of scale (spread, variation) are the major tools available.

Analytic Techniques and Data Presentation

Techniques to be employed throughout the CFRP evaluation will range from simple to sophisticated applications: univariate and multivariate analyses will be used; linear and nonlinear algorithms employed; and visual, exploratory, heuristic displays as well as formal statistical hypothesis tests will be presented. Three related objectives inform the choice of techniques to be used in various components of the evaluation:

- understanding, or obtaining in full the information that particular pieces of data have to offer;
- synthesis, or abstracting that understanding to cover successively more of the variety, richness, and complexity of the CFRP data base; and
- communication, or the presentation of understanding and synthesis such that interpretations are accurately conveyed and subject to informed, sensitive discussion, criticism, and dissent.

Descriptive techniques will include the examination and presentation of particular statistics (e.g., means and standard deviations), box plots (McGill et al., 1978), stem-and-leaf displays (Tukey, 1977), frequencies, scatterplots, correlation matrices, and reports of results from clustering and construct development analyses. Simplicity and visual impact are two virtues of these techniques and presentations, both of which are extremely important in exploratory data analysis. Visual displays (box plots, stem-and-leaf displays, and scatterplots) can be particularly important for discovering potential problems (e.g., "outliers"); for suggesting novel or at least alternative analyses and/or explanations; and for communicating, quickly, a sense of setting or context within which more elaborate analyses are carried out.

A set of such analyses using methods that overlap with the descriptive techniques mentioned above are the relational analyses that will be undertaken for the In-Depth study. The primary tools there will be scatterplots, correlation matrices, multiple regression models, and possibly discriminant function estimation (for dependent variables with but a few discrete response categories). Model building will be the basic means by which relationships between family and program characteristics, services, and family outcomes are examined and illuminated. Given the absence of compelling sociological and/or psychological theory with which to structure the analytic models employed, these analyses will involve considerable data exploration. Therefore, formal hypothesis testing will play only a small role, in the early stages of the In-Depth Study--proposition generation, for exploration in analyses of data to be collected in the future, will be much more important.

Formal hypothesis tests will be employed in the experimental impact study, where contrasts between CFRP and comparison family groups will be tested for "treatment" (CFRP) effects. The randomized assignment of families to these two groups permits a fairly rigorous, straightforward test (ANCOVAs) for these effects. If systematic, differential attrition (or any other potential problem) invalidates ANCOVA tests of treatment effects, then "adjustment" strategies may have to be employed in order to develop appropriate tests of treatment effects. Such "adjustments" may well involve the use of multiple regressions in ways similar to their use in the In-Depth Study. The previously discussed descriptive displays will be important for illuminating and communicating any treatment effects that are discovered.

All-in-all, the CFRP evaluation strategy allows a maximum opportunity for serendipitous results (through the data explorations in the Program and In-Depth Studies) while retaining methodological rigor (in the experimental Impact Study) in the assessment of CFRP effects.

Baseline Comparisons (CFRP and Comparison Families)

Although measures of impact and change will not be available until after the first year of the CFRP evaluation, there are two important reasons for analyzing baseline (year one) data. The first is to check the random assignment of families to treatment and control groups. The second reason is to assess the extent to which families and services in different programs are different relative to differences between families and services within programs.

Families were randomly assigned to CFRP and comparison groups, within sites. On the first year data, these two groups should not be different in any systematic, identifiable way (indeed, that is the purpose of random assignment--to control for unknown "effects" by sorting them randomly into each group in a study). Future analyses of CFRP-comparison family group differences, particularly ANCOVAs, will rely heavily on the assumption of initial group "equivalence" (see Elashoff, 1969).

First year contrasts between these two groups of families within each of the six impact study sites will serve two purposes. First, they will demonstrate clearly the randomized assignment of families, providing a baseline against which the importance of any later differential attrition of families can be judged. Secondly, first year contrasts can begin to identify important covariates for use in later impact analyses. These two functions of year one contrasts are discussed further below.

One obvious threat to statistical tests of CFRP-comparison family contrasts in future years is that of systematically differential attrition. In part, comparison family groups are larger than the CFRP groups because greater attrition is expected the former. Higher attrition in a comparison family group does not necessarily invalidate planned tests, but if attrition is systematically and differentially related to family characteristics that are important for understanding outcomes, then some statistical adjustments for attrition "effects" must be made. The immediate problem, however, is that of how such systematically differential attrition would be detected.

The simplest and most obvious test would be that of testing group equivalence with respect to baseline year one data on samples reduced by attrition--essentially, that is, "test" randomization of group assignment anew with each round of family interviews, always using baseline data but only including those families that remain in the latest round of data collection. If families were indeed randomly assigned initially and if attrition is not related to variables of importance in the study, then the tests described above will show no "effects" of attrition. (The statistical tests used will be tests of differences of means; see Appendix B for a discussion of these tests, and their power.)

The problem with the tests described above is that randomized assignment cannot ensure initial equivalence of groups in any given study. It is quite possible that CFRP and comparison families, in one or more sites, will be quite different on one or more baseline variables--the danger, then, is that subsequent mean differences would be discovered and wrongly attributed to attrition. Therefore, these contrasts will be tested on the full samples, during analyses of the first year data, to provide a baseline against which tests of attrition "effects" can be compared. In fact under randomization we are practically assured that some variables will be nonequivalent in the two groups.

This same set of first year contrasts may well point to important covariates that will have to be "controlled" in future impact analyses. As noted above, randomized assignment cannot ensure initial group equivalence in specific instances. If the first year contrasts discover some apparent, initial nonequivalence of groups within sites, then such nonequivalence must be taken into account when testing for differences between CFRP and comparison families that are to be attributed to effects of CFRP.

Comparisons Across Projects. Comparisons across projects are a part of all three studies in the CFRP evaluation. These comparisons between and within programs will bring empirical evidence to bear upon two important, overlapping sets of questions:

- Are the six experimental and in-depth study sites more appropriately considered six replications of a single demonstration program (the CFRP) or six separate and distinct demonstration projects? How and for what purposes may different programs be combined, analytically, in order to best describe and illustrate the findings of this evaluation?
- Do there appear to be identifiable service-family combinations with disproportionately high or low outcome measures? That is, do some service packages or types appear to be more appropriate for certain families than for others?

Analyses completed in the first year will not be "effects" analyses since outcome measures will not be available until after year one. Instead their purpose will be to assess the degree to which program-to-program differences must condition future analyses of outcome or impact.

Differences across subsets of the data pose a potential problem for first year analyses. Although this problem is easy to understand, it is difficult to specify a priori what analytic steps should be taken should relevant differences be discovered. Thus, the first step to be taken in year one analyses will be to look for differences between subsets in the data. Analytic techniques to be used will involve comparisons of means and covariance (correlation) matrices; formal statistical tests of mean differences will not be completed.

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Appendix A: Assessing Reliability[1]

The CFRP evaluation is not a measurement study *per se* (or a G-study, in the terminology of Cronbach et al., 1972)--it is an evaluation (or a D-study; see Cronbach et al.) from which decisions or conclusions will be reached.[2] The problems of estimating reliabilities satisfactorily are not easily surmounted when--as, in this study, quite properly --the measurement properties of the variables to be used are not the central focus of the study design.

Assessments of reliability of measures used in the CFRP evaluation will be an important component of both the experimental Impact and In-Depth studies. Unreliability of measures attenuates estimates of association, such as product-moment correlations and regression coefficients;[3] consequently, statistical power for testing the significance of these measures is decreased (see Appendix B, Statistical Power).[4] Basically, reliability is concerned with the consistency of values obtained for a given case (unit, person, object) across various measurement conditions or techniques that ideally will not affect the "true" score for that case. Any possible effects, on observed scores, of the measurement conditions or techniques themselves are considered to be error (see Stanley, 1971, p. 364 for a listing of possible sources of variations in *test* scores; others can be added for observational and interview instruments).

Clearly, estimation of reliability is required if the results of any statistical analysis of data with less-than-perfect reliability are to be fairly, sensitively, and appropriately interpreted.[5] For extremely important analyses, it may be desirable to correct estimates of relationships for attenuation due to unreliability, although this is very often a difficult and expensive task (for some advances in this methodology, see Fuller and Hidiroglou, 1978; also see Cronbach et al., 1972, Chapter 9, Section E). In the CFRP evaluation, reliability estimates will be derived, where possible, for the major variables and constructs used.

Three general approaches are often used, and two will be employed as the CFRP evaluation data collection design permits. The first of the three is the estimation of correlations between measurements taken over time (or test-retest). These will play a small role, if any, in the CFRP study, since the time between rounds of data collection are fairly long (about six months) and less-than-perfect correlations over time may well reflect actual change as well as "error."

Another approach to estimating reliability is that of estimating "internal consistency." The most appropriate measure here is Cronbach's alpha, although various correlational methods may also be used (split-half, odd-even). The major barrier to their use the CFRP is the lack of constructs or variables containing numerous items. Cronbach's alpha, or split-half reliability estimates, will not be very useful if based on only a handful of items.

The third approach to estimating reliability begins with the estimation of variance components for specified measurement effects, and forming estimates of intraclass correlations consisting of ratios of linear combinations of variance components estimates.[6] This approach grows out of "generalizabiity theory" (Cronbach et al., 1972) and may find some application in the CFRP evaluation. Unfortunately, there are some problems in using this approach in the CFRP study as well. First there is the difficulty posed in estimating "random effects" ANOVAs (see Henderson, 1953;

also, Harville, 1977); except in very simple designs, or very carefully planned and implemented measurement experiments, variance components estimates are difficult to obtain. Secondly, and perhaps more importantly, the unavailability of multiple measures, within a given data collection cycle, severely limits the ability to estimate important measurement effects: "occasion" or "error" and important interactions (e.g., interviewer-family or interviewer-parent) may be completely confounded with the most important random effects, those for parent or family.[7]

In summary, estimates of reliability are useful and may be required. Since the CFRP study is not designed to be a measurement study, satisfactory estimates may be difficult to obtain. Nevertheless, internal consistency and variance components approaches to estimating reliability will find some applications here.

Notes - Appendix A

1. See Stanley (1971) for an excellent, comprehensive discussion of traditional approaches to reliability concern. Cronbach et al. (1972) provide the very complicated extension of reliability concepts in "generalizability theory."

2. These findings will concern general effects of CFRP (in the experimental impact study) and specific covariates of particular outcome measures (in the in-depth study). Although the CFRP evaluation is not itself a measurement study, two related points ought to be considered. First, some measures with known psychometric properties will be used, particularly measures of cognitive skills in children (to be used after the second year of the study). Second, refinements and changes in the CFRP evaluation instruments will be made in successive data collection waves; partly, these changes will reflect improvements suggested by assessments of the quality and statistical properties of particular pieces of data.

3. Rubin (1977) seems to argue that unreliability of measures need *not* concern (at least many) social science researchers, and that worries about attenuation and decreased power are misplaced. Without denying the philosophical differences that exist between more typical approaches to testing for effects in naturalistic (quasi-experimental) settings and that espoused by Rubin, it is clear that Rubin's argument presumes perfect reliability, i.e., that it is the *operationalization itself* and not some underlying, abstract concept that is of interest.

4. The effects of unreliability on power are not discussed in Appendix B; however, the interested reader can grasp the problem heuristically by realizing that unreliability increases variation in measures. Statistical power is

partly a function of "effect size" (see Appendix B); partly a function of sample size; and partly a function of alpha, the "significance level" chosen for the statistical test. "Effect size" is always a standardized measure, a ratio of an "effect" to the standard deviation of the particular variable. *All other things equal* (especially the "true" change or change in the abstract construct underlying the measure), a decrease in the reliability of a measure increases its standard deviation; in turn, this decreases the measured, standardized "effect size," which decreases the power of the test.

5. Reliability estimates may be extremely helpful in interpreting essentially null findings (the absence of effects or covariation). All too often, the failure to reject statistical tests is taken to imply an "acceptance" of the null hypothesis, but this should *not* be so, necessarily. There are many reasons for failing to reject null hypotheses, one of them being insufficient power to detect an "effect" of some magnitude that has been established as being important, if that "effect" indeed exists in the population of interest. And one clue to the power of a given test is the reliability of the measure(s) used in creating the test statistic.

6. Specification of the *appropriate* intraclass correlations may be somewhat problematic. It depends both upon the idealized or "true" score in which the researcher is interested *and* upon the measurement design by which the observed score is constructed (see Kane and Brennan, 1977, for an application of some relevance for this discussion).

7. This will be true with a nested design (project, interviewer within project, family within interviewer, with no "replications" and no "crossing" of factors).

Appendix B: Statistical Power

B.1 Introduction

Simply stated, the power of a statistical test* is the probability of rejecting the null hypothesis. In principal, statistical power should be as carefully considered in the testing of hypotheses as is the probability of incorrectly rejecting a "true" null hypothesis. (The latter is known as the probability of making a Type I error, or "alpha.") In practice, however, there are a number of reasons why power is almost universally ignored in social science research and in program evaluation.

First, power must be calculated, given alpha, sample size, and a specific alternative hypothesis. For all but the simplest statistical tests (i.e., univariate tests of means and proportions), such computations become very difficult very quickly. With the advent of tremendous capabilities in computing hardware, in the past decade or two many power (and power relevant) calculations have been tabled. In some cases, interpolation may be possible to estimate power in situations that fall between those tabled. Extrapolation, however, entails greater risk and is not usually a safe alternative when a particular situation falls outside the bounds of those already tabled.

A second reason for the widespread neglect of statistical power is that power has been "traditionally" overlooked while control over the probability of making a Type I error has been "traditonally" emphasized. (Note that, *ceteris paribus*, the two are in a sort of "balance," or can only be changed via marginal trade-off with the other. That is, with sample size and specific alternative hypothesis fixed, power can only be increased at the expense of any increase in the probability of making a Type I error; alpha, similarly, is decreased only at the expense of a decrease in power.) Partly, the traditional emphasis is a result of the difficulties in computing statistical power. Partly, it results from the philosophy behind the classical approach to hypothesis testing, a philosophy that places the burden of proof (as it were) upon the rejection of a null (commonly accepted, established, or least controversial, expensive, or "dangerous") hypothesis (see Cohen, 1977, pp. 10-11). In situations where the formal "null" hypothesis is not commonly accepted, established, or not the least controversial, expensive, or "dangerous," it is folly to try to set an acceptable value for alpha, a priori, without considering the power of the test at the same time.

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*Given a sample size, a "true" specific alternative to a "false" null hypothesis, and a specified level of significance in making the test.

Whatever the reason, power computations are often neglected. There are two situations in the CFRP evaluation where power ought to be considered explicitly, where the formal testing of statistical hypotheses is of some importance. Both occur in the experimental impact study;[1] first is the assessment of the "adequacy" of the assumption of randomized assignment of families to treatment and control groups; second is the test of treatment effects (to be undertaken after year 1). Formal hypothesis tests will be made on differences of means in treatment and control groups.[2] Year 1 tests of the randomized assignment assumption will be two-tailed tests--the direction of differences in means cannot be predicted a priori. Tests of treatment effects, however, will be one-tailed since the direction of differences due to treatment effects should be presumed in advance.

B.2 Univariate Tests of Means

The specification of a particular alternative hypothesis is essential to the calculation of statistical power, and this in turn requires the concept of an "effect size" of interest. Just how big a difference between two means, for instance, would a researcher like to be able to detect with the statistical test (sample size, specified alpha) employed? Clearly, the question is scale-dependent; a general answer, therefore, is possible only in terms of a measure that is standardized in some way, a "dimensionless" quantity. For the test of a difference in means, the appropriate quantity is a ratio of the population mean difference to the common standard deviation.

Although the concept may be a bit difficult to grasp, it can be rather easily interpreted, by considering the "effect size" as a proportion of the standard deviation of the distribution of the variable in either group (where within group variances are equal) or of the "pooled" standard deviation (where within group variances are unequal). Taking an arbitrary "effect size" as given, specifying alpha, and with preselected sample sizes, the power of a t-test for differences between means can be estimated; alternatively, with the specification of alpha, power, and a prechosen "effect size," required sample sizes could be estimated.

In the CFRP evaluation, 100 to 120 families in each of six sites are presumably randomly assigned to treatment (40 families) and control (60 to 80 families) groups. If a test for a difference in means on one variable were to be undertaken in order to check on the randomization assumption, then statistical power is an important consideration in choosing a significance level for the test. Table B-1 lists the estimates of power for three levels of alpha, in a two-tailed test, with samples of 40 and 80 cases, and eight different "effects sizes."

Reliance upon a traditional level of alpha (.05) may be inadequate: the chance of detecting an arbitrarily defined medium-sized difference (size = .5) is less than 3-in-4. Even relaxing alpha to .20--that is, accepting a

1-in-5 chance of wrongly rejecting the null hypothesis of randomization--leaves less than an even chance of detecting a "small" difference ("effect size" = .2).

Table B-1 does not present accurate estimates of power for the randomization tests to be employed in the first year analyses of CFRP data, however. The reason is that more than one variable will be tested, and in such multivariate situations, power is increased.

B.3 Multivariate Tests of Differences in Means

Two types of multivariate approaches to testing differences of means will be taken in the CFRP. The first is known as a Bonferroni (or Dunn or Bonferonni-Dunn) approach to multivariate error control, and is appropriate when multiple tests of a single null hypothesis are being done (as is the case in the CFRP experimental impact study, where the null hypothesis is that of no difference between treatment and control groups within sites). In its simplest form, the Bonferroni approach assumes independent tests, an assumption that is not true when multiple tests are of variables measured in the same sample. This form, nonetheless, offers an upper bound to "simultaneous" or "joint" error control over the whole group of tests (see Morrison, 1976, p. 33).

For m tests of the overriding null hypothesis, each at an individual level of significance given by a^*, the probability of failing to reject any single test is given by $(1-a^*)$. Where, again (as is the case in the CFRP experimental impact study), rejection of a single univariate test will be grounds for rejecting the overriding null hypothesis, the lower bound to the probability of correctly failing to reject all the tests for differences of means is $(1-a^*)^m$, the product of the individual probabilities. The overall "simultaneous" or "joint" alpha level, or probability of making a Type I error, is $[1-(1-a^*)^m]$. The impropriety of using traditional levels of alpha for each individual test can be clearly shown. With an a^* of .10 and 10 tests to be done, the "simultaneous" alpha (or Type I error protection) is $(1-(.9)^{10}) = .65$; that is, the researcher runs a risk of up to nearly two chances in three to wrongly reject a "true" null hypothesis! The situation is not much better with $a^* = .05$: for 10 tests, the "simultaneous" upper-bound to alpha is .40; with $a^* = .05$ and 25 tests, the upper bound is .72.

When alpha and m (according to the formula given in the preceding paragraph) are relatively small, a^* can be approximated by alpha/m. With 10 tests and an alpha of .05, then, a researcher should perform each of the individual tests at the .005=.05/10 significance level.

The Bonferroni approach to multivariate tests makes power calculations difficult, since specification of "effects sizes" must be done for all variables for which differences in means are to be tested. And the question of whether one particular "effects size" ought to be specified across all tests is certainly debatable. Consider, however, the case where "effects sizes" (or standardized differences in means) are the same for all variables being tested, in the populations from which data are sampled. Given an identical significance level across the individual tests, the likelihood of correctly rejecting a test is identical for each of m tests, given by $(1-b^*)$. The probability of wrongly failing to reject the null hypothesis is b^* (the likelihood of making a Type II error). Since the testing procedure is such that the rejection of any test will result in rejection of the overriding null hypothesis, the power of the "simultaneous" testing procedure--with independent tests--is $[1-(b^*)^m]$. The quantity $(b^*)^m$ is simply the likelihood of failing to reject the null hypothesis on any of the m tests, given the specified alternative. When tests are not independent, this procedure gives a lower bound to power.

Using a traditinal alpha at the level of individual tests (.05), and arbitrarily defined "small" effects (as in Table B-1) pervasively, identically spread over 10 variables, the power of the test is estimated (lower bound) at $[1-(.27)^{10}] > .99$. The inadequacy of using traditional significance levels in multiple testing situations should be apparent: in the situation just specified, the test is very powerful vis-a-vis small but pervasive differences (>.99), but as noted earlier--in an identical testing situation (see Section 4.4)--the likelihood of incorrectly rejecting a "true" null hypothesis may be nearly 4-in-10 rather than the 1-in-20 usually "promised" by the .05 alpha level.

Table B-2 presents power calculations for 10 and 20 "simultaneous" tests of mean differences, at different "effects sizes" (with differences assumed to be pervasive, across all the variables), using an overriding alpha of .20 (two-tailed) or .10 (one-tailed), and with two different sets of sample sizes (40, 80; 30, 50). Clearly, given alternative hypotheses of pervasive group differences, the CFRP experimental impact design has sufficient power to detect relatively small effects.

The assumption of pervasive differences, across all variables, seems to be somewhat restrictive. In particular, it seems reasonable to expect differential effects (across variables) by such characteristics as family needs and program strengths. Power calculations under a Bonferroni approach to analysis would have to begin to consider not just the magnitudes of differences, but what proportion of the set of variables being tested have "effects sizes" of given magnitudes. The exercise would become quite tedious, with little point. A more general, if more abstract approach would use a true multivariate test of difference of means.

Hotelling's T^2 is such a test (see Morrison, 1976, Chapter 4). The T^2 statistic has an F-distribution; power can be calculated with the help of tables found in Timm (1975). As with tests of means, an "effect size" must be specified for a praticular alternative to the null hypothesis; the appropriate "effect size" expression is the multivariate analog to the square of the "effect size" for tests of differences in means, with more than two groups. The quantity is

$$(\mu_1 - \mu_2)' \sum^{-1} (\mu_1 - \mu_2);$$

note that this is a scalar quantity and that it is scale independent. By analogy to Cohen's (1977) univariate F-tests (to which the T^2 reduces when the variables are independent; that is, when Σ is diagonal), an effect size of .03 is arbitrarily taken to be "small," .50 as "medium," and 1.00 as "large" (see Cohen, 1977, Chapter 8). Table 8-3 lists power estimates for the T^2 test, with alpha = .05, number of variables = 3, and for various sample sizes. It appears that, at the specified value for alpha, the CFRP samples within sites will provide enough power to detect "large" differences, only moderate power to detect "medium" differences, and practically no power for detecting "small" differences.

Power can be increased in two ways, both of which may be employed in the CFRP experimental impact study. More than 3 variables may be tested at once, and/or the significance level chosen for such tests may be relaxed (say to .075 or .10). [Power estimates are not given because tabled values for the appropriate noncentral F distributions are rare, if they exist at all.]

Appendix B: Notes

[1] Model building (involving multiple regressions) in the *in-depth* study might also be listed as an area in which statistical power should also be considered. However, there is a fair amount of uncertainty (as yet) concerning the statistical nature of that study. Basically, it will be more of an exploratory study, and formal hypothesis testing will occupy a far less central role there than in the experimental impact study.

[2] As noted in the text (4.4), checks on the randomization assumption will extend beyond tests of differences in means; further checks will *not* be made in a formal hypothesis testing framework, though.

B-1: Power Estimates for a Single Test of Differences in Means, Between Two Groups (two-tailed or nondirectional tests; sample sizes of 40 and 30)

"Effect Size"[a]	.20	.10	.05
	Significance Level		
.2[b]	.40	.27	.18
.3	.60	.46	.34
.4	.78	.66	.52
.5[c]	.90	.82	.72
.6	.96	.93	.87
.7	.99	.98	.95
.8[d]	>.99	.99	.98

[a] This is simply the ratio of the (population) difference in means to the common or pooled standard deviation.

[b] This is Cohen's (1977) arbitrarily defined "small" effect."

[c] This is Cohen's (1977) arbitrarily defined "medium" effect."

[d] This is Cohen's (1977) arbitrarily defined "large" effect."

B-2: Power Estimates for Pervasive Differences in Means, Between Two Groups (using Bonferroni approach to simultaneous Type I error control at .20 for non-directional or two-tailed tests, or .10 for directional or one-tailed tests)

	Sample Sizes			
	40, 30		30, 50	
	# Variables Tested		# Variables Tested	
"Effect Size"[a]	10	20	10	20
.2	.55	.88	.52	.77
.3	.99	.99	.80	.95
.4	>.99	>.99	.95	>.99
.5	>.99	>.99	>.99	>.99

[a] See note a, Table B-1.

B-3: Power Estimates, T2 Tests of Differences in Two Mean Vectors, Independent Samples (alpha=.05, for 3 variables)

Sample Sizes	Small	"Effect Sizes"[a] Medium	Large
40, 80	<.5	.70	>.99
40, 60	<.5	.60	.99
30, 50	<.5	.50	.93
20, 40	<<.5	<.5	.75

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[a] These are arbitrarily defined, but correspond to Cohen's (1977, Chapter 8) similarly defined "effects sizes" for an F-test of an ANOVA with 3 groups.

Appendix C: Measuring Change

In social science research and in program evaluation the concept of change is frequently inherent in the notion of "impact" or "outcome." Ultimately something about a case, an individual, a family, a program, or perhaps a community, is presumed to be altered via the action or intervention of some agent or force. With suitable information available on appropriately sampled cases and a research design that is feasible, an evaluator will be able to glean some insight into complex social and psychological forces. This insight , in turn, can guide the formulation and/or administration of public policy concerning the phenomena under study.

In truly experimental situations, even those where subjects or cases are "pretested," the measurement of change qua change is unnecessary (Campbell and Stanley, 1963, pp. 13-26; Elashoff, 1969; Cronback and Furley, 1970, p. 78). The effect of randomized assignment of cases to treatment groups is to render tests of group-to-group differences in posttest variables adequate.[1] Not only are these adequate, but they are usually "best," that is, most likely to detect any treatment effects. Ideally and in principle, therefore, measures of change are not required for the experimental impact study component of the CFRP evaluation. Since families were randomly assigned to treatment and comparison groups, appropriate tests are relatively straight forward tests for differences in mean vectors and mutlivariate ANCOVA on status and outcome measures taken with each successive data collection wave.

In the In-depth study and the experimental Impact study, if the underlying assumptions are violated in any particular sites, this argument will not hold. Comparisons of measures taken at each later point in time between groups, however defined, whether site-to-site or by any of a variety of possible partitions of the sample, must somehow account for pre-existing differences between the groups. Under these conditions, measures of change may become important. In particular it may seem to be advantageous to phrase research questions in terms of differential change rather than in terms of differences in single-time-point measures.[3] Two general approaches to measuring change can be distinguished under these circumstances.

The first involves retrospective, subjective assessment of change. These may involve "self" or "other" assessments. They may be dichotomous (change or not), trichotomous (change down, none, change up) or they may be formated with multiple response categories in an attempt to obtain measures with some useful variation (much worse, a little worse, no change, a little better, much better). Retrospective assessments of change may also be obtained in more devious, roundabout ways. Although obtained measures of change will look like those mentioned above, interview respondents might be asked to characterize something about themselves as of some previous time, and the question may be repeated later in the interview but with respect to the respondent's current status. Shortcomings of such measures are well known, not the least of which is the problematic validity of the assessments.

The second approach to measuring change is to use data at two time points, estimating change as some function of the two obtained scores. This approach is prominent in psychology and educational research where the cross-sectional measures are often scales with known psychometric properties (see Linn and Slinde, 1977). The easiest measure to compute is a simple difference score, posttest less pretest. Unfortunately, this measure of change has a number of problems, one of them being a negative correlation with pretest scores (Linn and Slinde, 1977, p. 122). A more often used measure is a "residualized" change or gain sorce. These have zero correlation with pretest, but cannot truly be considered change measures. A "residualized" gain is the difference between an observed score and its predicted value, where the prediction is based, in part, on the pretest score. As such, "the residualized score is primarily a way of singling out individuals who changed more or less than expected" (Cronback and Furby, 1970, p.74)[4]

Change Measures in the CFRP Evaluation

In the CFRP evaluation, both general approaches to assessing change will be taken. With respect to the first, subjective, retroactive measures, there will be caseworkers' assessments of "goal attainment" for individual families. Since the validity of such measures is almost always a problem, goal attainment forms include specification of goals, intermediate steps and responsibilities for achieving intermediate results at times prior to assessments of progress in meeting these goals.[5]

With respect to the second "residualized" change measures, the CFRP evaluation will use the logic of this approach. Models (multiple regression included but not necessarily exclusively) will be developed for predicting family outcome measures, and departures from such predictions will be examined for realtionships with program, staff, and/or service variables of importance in the evaluation. Unless sound, psychometrical scales can be developed for outcome measures (e.g., a locus of control scale), this approach to measuring "change" is fraught with difficulties and all analyses should proceed with caution. Even if fairly reliable measures of outcome are developed (e.g., assessments of cognitive skills in preschoolers), residualized change scores might not be very reliable (see Bache, 1978; Linn and Slinde, 1977, pp. 123-125).

Clearly, computations of raw change over time in family measures that are collected during successive waves of interviews can be computed, aggregated (to staff, service, and/or program level), charted and visually inspected. As discussed above, such measures have subtle but important and analytically dangerous pitfalls in attempting to associate other variables with them. To the extent, therefore, that other measures can be constructed--retroactive assessments or "residualized" measures or both--the in-depth study will use them as outcomes.

Appendix C Notes

1. Two appropriate and often used tests are the t-test or ANOVAs for differences in means and the ANCOVA extensions of the same. It can be argued that ANCOVA, using a pretest as a covariate, amounts to a form of "residualized gain" analysis, and that "residualized gains" or "residualized changes" are indeed measures of change. While the use of "residualized" measures of change is recommended for certain variable in the CFRP evaluation, it is clear that such scores do not measure change as pre- to post-test gain. Rather, such "residualized" scores estimate departures from expectation or both "best predictions" (Cronbach and Furby, 1970, p. 74).

2. This conclusion must be conditioned, of course, upon the validity of randomized assignment of families to the two groups. Future tests of treatment effects will also be conditioned upon maintenance of the treatment-comparison distinctions and the continued treatment-comparison initial equivalence. The former might be threatened by the diffusion of CFRP "treatments" through social, neighborhood and informational networks, and the later could be threatened by systematic differential attribution in the two groups.

3. Of course, this rephrasing of research questions cannot escape the problems posed by pre-existing group differences in quasi-experimental research. With carefully constructed "residualized" change scores, the problem is minimized, assuming the propriety of the residualization. "...there simply is no logical or statistical procedure that can be counted on to make proper allowances for uncontrolled pre-existing differences between groups..." (Lord, 1967, p. 305).

4. Although research questions are rarely phrased in terms of relative departures from expected or predicted

scores, it should be evident that this form of question may be at least as important, if not more important, than the more typical phrasing of questions of change. In many program evaluations, for instance, the appropriate question is not "what produces" the most change, since the answer may be choice of clients. Disproportionate selection of low pretest scores will "produce" a sample with greater changes than will a proportionately stratified random sample of the same client population. A more appropriate question under such circumstances, given the sample, is which identifiable program characteristics are associated with higher departures from expected, or average, outcomes where expected outcomes are the best predictions available from data other than those program characteristics.

5. In part, then, the development of operational measures of "goal attainment" will be a scaling exercise involving the assessments of actual progress. Clearly, there are still many problems to be faced in this undertaking such as staff to staff differences in the specificity and realistic attainability of goals developed and agreed upon with families. Any further discussion of either the promise or pitfalls of "goal attainment" as it is being assessed in the CFRP must await the examination of data.

Appendix D: Child and Family Resource Guidelines

February 7, 1973

CHILD AND FAMILY RESOURCE PROGRAM:

Guidelines for a Child Development-Oriented Family Resource System

U.S. Department of Health, Education, and Welfare
Office of Child Development
P.O. Box 1182
Washington, D.C. 20013

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THE CHILD AND FAMILY RESOURCE PROGRAM

GENERAL INFORMATION

In June, 1972, Dr. Edward Zigler, then Director of the Office of Child Development (OCD), announced the development of a new experimental project during FY 1973, the Center-with-Many-Programs, since renamed the Child and Family Resource Program (CFRP). This project was launched as part of the overall Head Start Improvement and Innovation effort. The primary purpose of Head Start is to serve as a national demonstration of comprehensive developmental services for children from low-income families. In addition to representing a model service delivery system itself, in the past Head Start has stimulated the development of several other innovative approaches to the delivery of child development services, including Parent and Child Centers (PCC), Health Start and Home Start. The Child and Family Resource Program represents the latest phase of this ongoing demonstration thrust and builds upon these earlier initiatives.

The Child and Family Resource Program (CFRP) is designed to provide Head Start-type developmental services to preschool children, and in addition broadens the program focus to the entire family. The CFRP will make available to parents and children in the family those services necessary to foster child growth and development. The CFRP will provide continuity in meeting developmental needs, concentrating resources to serve children from the prenatal period through preschool years. Recognizing the importance of bridging the developmental gap in the early school age period to insure that early gains do not fade, CFRP will also work closely with schools and other community institutions to plan appropriate follow-on strategies through age eight or third grade.

The CFRP approach will be to use a Head Start program (perhaps jointly with a Parent-Child Center) as the nucleus of a service delivery network, working closely with other community agencies, to make available the appropriate range of program activities. This approach recognizes that not all families have the same needs and that the needs may not all be met the same way. It builds upon the capabilities of existing services now being provided by other agencies and makes all relevant community resources available to families as part of an integrated and flexible program, that can evolve as family circumstances change. At the same time, the CFRP will help reduce the fragmentation and gaps in the delivery of services by these existing community programs and agencies.

This program strategy has also been influenced by recommendations of the 1970 White House Conference on Children, such as those relating to comprehensive resource centers for families, comprehensive maternity and infant care, neighborhood human service centers and delivery strategies for health services based on developmental needs of children. The Child and Family Resource Program will therefore benefit from the pioneering efforts of many other agencies which have developed strategies for delivering unified services to children and families.

During FY 1973, OCD plans to develop one CFRP model project in each of the ten DHEW regions, and one project for the Indian and Migrant Program Division.

The CFRP experimental project is the responsibility of the Program Development and Innovation Division of the Office of Child Development (OCD) in cooperation with Project Head Start. Research and Evaluation support will be provided by the Research and Evaluation Division of OCD.

For further information concerning program design contact:

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For further information concerning evaluation design or research in related areas contact:

Dr. Esther Kresh, Acting Director
Research and Evaluation Division
Office of Child Development
P.O. Box 1182
Washington, D.C. 20013
(202) 755-7750

For further information concerning the Head Start program or Parent Child Centers, contact your nearest Regional Office (see list of Office of Child Development Regional Offices contained in Appendix A), or:

Mr. James Robinson
Director, Project Head Start
Office of Child Development
P.O. Box 1182
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I. INTRODUCTION

A. BACKGROUND

In recent years the Office of Child Development has launched several research and demonstration efforts which have produced significant findings related to the development of young children and their families. Among these are Parent and Child Centers, Health Start, and more recently, Home Start. Each of these programs, along with Head Start, uses a specific approach to the delivery of child development services. As yet, however, no attempt has been made to incorporate the positive aspects of each approach into a single program or linked program network which can provide continuity of comprehensive services to eligible children from the prenatal period through eight years of age.

It is well-recognized that each child is an individual whose pattern of growth and development may require different kinds of services and programs in different quantities and at different times. However, although programs may use different methods to deliver services (for example, some are center-based, some home-based, and some use combinations of both), the types and quantities of services offered within a program usually are not tailored to the specific needs of individual children. The net result of all this is that some children and families may receive few services, some may receive services they don't need, while others may receive an overall surplus of services.

This lack of tailoring or individualizing services to fit individual needs, together with the lack of flexibility to change the degree or kind of services to meet changing or emerging needs has become a matter of increasing concern in many quarters. In response to this need, the Office of Child Development has established the Child and Family Resource Program, to promote individualized child development services, flexibility and options within programs, and continuity of comprehensive services from before birth through age eight.

B. KEY FEATURES OF THE CFR PROGRAMS

As previously indicated, the purpose of each local CFRP will be to provide integrated delivery of comprehensive services to children and families on an individualized basis. It is expected that such systems can be replicated or adapted by other Head Start programs in the future. Successful features can also be implemented in whole or in part by other child development programs, or they can stimulate better linkages between existing child and family-centered community programs.

The Child and Family Resource Program will:

- serve eligible children from birth through 8 years of age and their parents.

- provide a comprehensive developmental program with a wide range of services based on individual assessment of need of each child and family

- develop a multi-disciplinary and flexible system for service delivery based on the premise that no single approach is universally suited to all low-income children

- focus on the family as the basic unit of the CFRP system in order to provide resources, assistance, guidance and support as needed

- promote continuity of comprehensive services available to children which are suitable to different needs at each level of development by the creation of a linked program network which incorporates Head Start, services similar to those demonstrated in other OCD projects (such as Parent and Child Centers and Home Start) and other community-based programs serving children and families (such as pre-natal and well-baby clinics and day care centers).

C. OBJECTIVES

Principal objectives of the CFRP are to:

1. Individualize and tailor programs and services to children and their families.

2. Link resources in the community so that families may choose from a variety of programs and services while relating primarily to a single resource center for all young children in the same family.

3. Provide continuity of resources available to parents, enabling each family to guide the development of its children from the pre-natal period through their early school years.

4. Enhance and build upon the strengths of the individual family, as a child rearing system, with distinct values, culture and aspirations. The CFRP will attempt to reinforce these strengths, treating each individual as a whole, and the family as a unit.

II. DESCRIPTION OF THE CFRP

A. LINKAGES AND RESOURCES

The Head Start Program will form the nucleus of the Child and Family Resource Program, perhaps in conjunction with a Parent Child Center. The expansion of formal linkages to existing community resources will provide services to low-income children and families in health, nutrition, mental health, education and social welfare. These linkages will go beyond the formal and informal resource and referral systems normally used by the Head Start program. This will extend the concept of coordination to create an integrated services network which focuses not only on the individual children, but on the family as a unit. By reducing the fragmentation which characterizes many community programs delivering services to children at different age levels and only for specific areas of need, the CFRPs will become an effective system which ties together programs and services in a form which is more useable and appropriate to the needs of each specific family.

The CFRP will not be the first attempt at providing a full array of development services for low income families. For example, the CFRP will build upon the multi-disciplinary foundation of the Head Start child development concept, but will expand the scope of the project to include children before and after preschool age. The CFRP will hopefully demonstrate a new dimension in the integration of child development services. It will provide a system which will serve needs of children longitudinally throughout the major stages of early development and will provide appropriate related services to parents and other family members to foster the child's development.

The Head Start experimental Parent-Child Center program has contributed significantly to our knowledge of the benefits of a continuous developmental program through the child's first three years of life. The PCC, Head Start and Home Start programs each emphasize the role of the parents as the significant prime influence on the child's development. The CFRP builds upon these and other approaches to create a unified system. The CFRP also emphasizes program linkages with school and other agencies to follow children through their early school years. By assisting children and parents in making a smooth transition into school, supporting both home and school efforts to maximize the potential of each individual child, and providing resources for the continuation of developmental services to families, the CFRP will attempt to overcome the sometimes dramatic fade of developmental gains children may experience after they leave Head Start.

The CFRP system of service delivery is expected to expand as the project develops, increasing both the number of resources available and the number of eligible families enrolled. It will be important, however, to avoid stretching resources too thinly and either failing to meet the in-depth needs of a high quality program or raising expectations of program participants beyond what may be delivered effectively.

Each CFRP experimental project will develop its own unique program based on the community's projected needs, resources and characteristics. The required services which must be provided through the CFRP are described below. However, the nature and kind of indirect services, the specific linkages, and contracts or agreements developed with other programs, agencies and organizations will depend upon the local community needs, priorities and local project design. In each case, the design must be tailored to maximize usage of existing community resources. Where necessary, these resources must be adapted to serve the developmental needs of children and families. Where these resources are not available, it will be necessary to create new services to fill gaps.

Whatever the origin of resources, it is essential that the program be flexible enough to provide adjustments within the CFRP delivery system to meet the changing or emerging needs of enrolled families and children.

To summarize, the CFRP experimental project will make use of the experience of other related programs (such as neighborhood multi-service centers, maternal and child health programs and family service agencies), but it will build upon the existing Head Start program. It will develop an expanded system which integrates services similar to those demonstrated in other OCD programs (such as Parent-Child Center and Home Start) with services traditionally offered by Head Start. The CFRP will also attempt to coordinate with and utilize other community-based programs which provide needed services in health, education, mental health, day care and social services to families and children. Further, the CFR program is longitudinal in concept to provide continuity through the major stages of the child's early development.

B. COMPARISON TO HEAD START

The CFRP will be similar to Head Start in the following ways:

o the project will continue to serve families in the same target area who are eligible for Head Start;

o all Head Start policies, performance standards, regulations and requirements for all components must be adhered to by each CFRP in serving pre-school children of Head Start age;

o all preschool children normally enrolled in the Head Start program will continue to receive at least the same kind of services as in the past.

o parents of all children will continue participation and involvement in the program according to Head Start Policy.

The CFRP will be different from Head Start in the following ways:

1. The whole family will be enrolled instead of just the Head Start child. The focus will be placed on the family unit as a distinct child rearing system, so that the needs of individual children will be assessed in terms of the family as a whole.

2. The scope of services will be broadened. In addition to serving the preschool child, the CFRP will also act as a resource to parents for the developmental needs of both younger and older children in the family. Specialized supplemental services may also be added, which were not directly available through the program to Head Start children(e.g., prenatal medical services, pediatric screening and counseling, referrals for medical or dental treatment, etc.).

3. The system for the delivery of programs and services will be operated cooperatively with other community agencies. The project design for the CFRP will provide the opportunity to change the delivery system as necessary to make certain services more effective, to add new ones, and to include a variety of strategies and approaches required to provide continuity in meeting the developmental needs of children from the pre-natal period through the age of eight.

III. PREREQUISITES FOR CONSIDERATION AS A CFRP SPONSOR

Applicants for Child and Family Resource Programs must meet the following requirements:

1. Sponsors must be agencies funded by OCD as Head Start grantees or delegate agencies. Agencies nominated by OCD Regional Offices must have a demonstrated record of acceptable Head Start performance based on monitoring or other evaluation.

2. The Policy Council/Committee of the nominated Head Start agency must be fully informed of the purposes, objectives and requirements of the CFRP as described in this document.

3. A letter to the Regional Office signed by the Chairman of the Policy Council/Committee and by the Chairman of the Governing Board of the Grantee or Delegate Agency must state that the membership of the Council/Committee has considered and concurs with the Board's decision to make application for a CFRP grant. It should be further stated that the members of the Policy Council/Committee, or sub-committee appointed by the chairman, agree to participate in proposal planning and development as well as the project evaluation study described in Section V.

4. During the first year of the CFRP, there must be at least 80 families enrolled in the project. CFRP families must meet Head Start income eligibility requirements, i.e., at least 90% of the families must have incomes at or below the poverty guidelines. In addition to families already enrolled in Head Start (or PCC), each CFRP must make an active outreach effort to extend its comprehensive services to other income eligible families who may be referred by other child and family service agencies. Within 120 days after program operations begin, at least 25% of the enrolled families must be families new to Head Start, who have been referred by other agencies. This will help insure an exchange of benefits between the CFRP and other cooperating community service agencies.

In determining the number of families and children to be served by the applicant CFRP, factors to be considered include the average cost per child of the present Head Start program, the projected estimated costs of serving additional children and their families, and estimated funding and/or services which will be committed from sources outside of OCD. Within reasonable limits, additional families may be enrolled as available resources permit.

5. Determination of the actual funding level will be based on the characteristics of the local site (including the size of the program and its present dollar budget) and an assessment of the requirements and resources indicated by the project design. However, no single CFRP experimental grant will exceed $125,000 for its first year.

6. The CFRP may be located in either rural or urban areas. For maximum identification with the target area population and to facilitate coordination with major service agencies, it is suggested that the target area coincide with a neighborhood or section of a city. It is preferable that the target area also coincide, or fall within, the boundaries of a common service area defined by the local health, social services agencies and public school systems.

7. Interested Head Start grantees must submit a "Questionnaire/Prospectus" to the appropriate OCD Regional Office. (Forms may be obtained from the Regional Office.) Based on information submitted in the Questionnaire/Prospectus, Regional and National OCD offices will decide jointly which grantees will be further considered as candidates.

IV. PROPOSAL PLANNING AND PROJECT DESIGN

As noted earlier, and in the Budget section (page 19),no CFRP grant will exceed $125,000 for the first year - a year which will, in most cases, be a year for both planning and operations. It is anticipated that each Child and Family Resource Program funded in FY 1973 will be funded for a total of four years, contingent upon compliance with these Guidelines, compliance with evaluation requirements (see Section V), submission of a satisfactory annual "Request for Continuation of Funding," and the availability of funds.

In the planning and design of the local Child and Family Resource Program, planners must bear in mind the purpose and objectives outlined in Section I, the similarities and differences between the CFRP and the Head Start program on which it will be based as described in Section II, and the prerequisites for potential applicants contained in Section III. In this section, more specific guidance will be offered in the development of the proposal itself.

A. THE CFRP's CONTRIBUTION TO THE COMMUNITY

Although the goal of the total CFRP is to develop model systems which may be replicated or adapted in different kinds of communities to serve a variety of child/family populations, the major goal of each individual CFRP is to develop a system which becomes a model for its own community. The CFRP should develop a system which is workable, appropriate to local needs and specific characteristics, and which is successful in fulfilling the needs of children and families within a longitudinal framework. By developing coordination and integration between programs and services which are resources to families and children in that community, the CFRP will be making a major contribution not only to those it serves within the target area, but to the total community.

This does not mean that the CFRP system will duplicate any ongoing coordinating, planning or delivery mechanisms in the areas of health, education, child care or social services. Instead, the CRFP system will establish relationships with ongoing systems in order to supplement, complement or contribute specific services in the area of child/family development. Thus, the CFRP is expected to assist in the development of local community capability, expertise and commitment to carry out comprehensive service programs built around the needs of families and children, and to develop a model which may be replicated or adapted throughout the total community to serve all children and families. Each CFRP will be expected to work from its inception toward continuation of the model service system and integrated program network. This is to be accomplished through continued re-programming of regular Head Start funds, local and state government funding, private contributions and the assumption of costs and expenses by other agencies and organizations.

B. NON-FEDERAL SHARE

During the initial year of the CFRP supplemental funding, the requirement for local share will be waived for the CFRP. However, negotiated agreements for cost-sharing, supplemental funding from other than OCD sources, shared salaries and expenses for contributed staff, and major contributions of facilities and equipment should be estimated in the proposal and documented throughout the project's duration, as part of the overall evaluation. (See Section V.)

C. MINIMAL AND ADDITIONAL SERVICES: GENERAL REQUIREMENTS

As previously indicated it is to be the intention of the CFRP demonstration effort to make maximum use of every appropriate resource to families and children in carrying out a comprehensive program. The CFRP design therefore must not duplicate any specific programs or provide services which are already available and for which CFRP enrolled families are eligible. However, each CFRP must provide or include as available resources to all enrolled children and families, those services defined herein as minimal. Each CFRP may also provide those additional services defined as essential to meeting locally defined needs within the target area according to the availability of the necessary resources or funding and subject to mutual agreement between the governing board of the sponsoring agency and its Policy Council/Committee.

1. OCD Required Minimum Services

a. Comprehensive individual assessment of family and child needs based on consultation with the family, and including:

1) pediatric health evaluation, screening and diagnosis, dental examination, and assessment of nutritional needs

2) assessment of the social, educational and economic strengths, goals, aspirations, and resources within the family.

b. Preventive, treatment and rehabilitative services as required for the individually diagnosed medical, dental, nutritional and mental health needs of children up to 8 years of age.

c. Prenatal medical care and educational services (e.g. counseling on nutritional needs)

d. Developmental services for families and children including:

1) programs designed to assist parents to promote the total (emotional, cognitive, language and physical) development of infants and toddlers through 3 years of age.

2) pre-school comprehensive Head Start services for children from 3-5 years, including education, social services, parent involvement and health services (medical, dental, mental health and nutrition).

3) programs designed to ensure smooth transition for children from pre-school into the early elementary school grades.

4) group activities and family development programs for parents, to provide knowledge and information about community resources, child growth and development, nutrition, homemaking and consumer education, promoting improved intra-family relationships, managing child behavior, and/or other topics identified by parents themselves.

5) special development programs for children with learning disabilities, physical and emotional handicaps, speech or language disorders and/or other handicapping conditions requiring remediation (see OCD Notice on Head Start Services to Handicapped Children, which will soon be issued).

e. Family support services such as:

1) individual and group counseling, and advisory services for children and adults.

2) identifying to other agencies life support needs of children and parents including such items as housing, clothing, food, employment and other needs which must be met to guard health, safety and well-being of family members.

3) emergency services in times of family crises including care of children, transportation, shelter, food, fuel, household goods, clothing and other immediate needs on a temporary basis.

4) family planning assistance and counseling.

5) food assistance programs, such as food stamps, commodity foods, school feeding programs, etc.

2. Additional Services Based on Local Decisions

Examples of possible additional services that may be provided if program resources permit, include:

a. Full day child care (family or center) for children who require it.

b. After-school recreation/learning centers for children in early elementary school grades.

c. Family recreation programs and social events to promote the sharing of leisure time by adults and children.

d. Boy Scout, Girl Scout, and similar programs for school age children

e. Workshops for adults and older children in the construction and/or renovation of simple equipment, toys and furniture for the home and/or classroom, large muscle toys and outdoor play equipment.

f. Tutoring for children needing help in reading and mathematics, or for adults who desire additional development in these skills, or access to adult basic education courses.

g. Lending library of children's toys, books, records, record players, tape recorders, games and small sports equipment.

h. Family room and library of resource materials, pamphlets and books of interest to parents.

i. Cooperatives for the purchase of food, toys, clothing, household blankets and linens, and/or other family needs.

j. Cooperatives for the sale of products such as skilled crafts, home baking and/or other items made or produced by participating families

D. PROGRAM POLICIES AND PERFORMANCE STANDARDS

1. All Head Start policies, as contained in the Head Start Manual of Policies and Instructions, and all OCD-Head Start Issuances and Notices* will apply to the CFR Program, except as set forth in these guidelines.

2. Performance Standards for all components as contained in OCD Issurance N-30-364-1, dated January 1973 must be met for all programs and services provided directly (that is, through CFRP funds) to preschool children and their families.

E. ASSESSMENT OF INDIVIDUAL NEEDS

The key element is to be the assessment of individual needs. Each project's success will depend on its capability to assess individual needs, and to determine with the parents which of the various options can be used to best advantage by each participating family and family member. The assembly of an assessment team, composed of competent and qualified professionals from the disciplines of health, early childhood education, family life education, mental health and social work will be of critical importance. How this team will be organized, and how it will function, must be a vital part of the project design and therefore must be fully described in the project proposal.

F. PROGRAM COMPONENTS

Each CFRP must have available the full range of services normally provided to Head Start children, plus whatever additional services are required for the broadened scope to younger and older children. Full compliance with the Head Start Performance Standards for each preschool component will be required throughout the project. The proposal must describe how compliance with performance standards will be met for each existing resource and service which is to be integrated into the CFRP system.

Component services to be provided by contract or agreement with other agencies, and those to be provided by program staff must be clearly indicated in the proposal. Regardless of the strategies decided upon by which the CFRP will provide full component coverage, the total package must be suitable to the particular needs of each locale, and must be satisfactory to the community. Local ethnic, cultural and language characteristics are important considerations which must be taken into account in individualizing the education, parent involvement, social services and health (medical, dental, mental health and nutrition) components of the CFRP.

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*Special attention should be directed to OCD Notice N-30-334-1 on Program Options for Project Head Start, dated 8/21/72.

G. STAFF ROLES

The staff of the present Head Start program will be expected to form the core of experienced and trained personnel to provide continuity during the expansion of that Head Start program into the full blown CFRP. Each CFRP must examine the needs for additional staff, or the assignment of additional responsibilities which will be required to carry out the objectives of the project. Opportunities for career development should also be reviewed and identified. It is strongly urged that one full-time position be designated for the primary function of identification, coordination and utilization of all available community resources.

Proposals must include a description of the staffing pattern, and provide information about the background, qualifications and competencies of personnel carrying major staff responsibilities in Administration, Education, Staff Training, Social Work, Health, Nutrition, Mental Health and the Parent Program. Staff roles, including assigned responsibilities for more than one component, should also be described, or copies of job descriptions should be provided. CFRP funds may be used as appropriate to pay for staff of other agencies if those staff activities directly support the experimental project.

H. TRAINING

The complexities involved in the development of the CFRP and the extreme importance of the inter-disciplinary approach to the entire project will require that a well planned training component be included in the project design. Special attention must be paid to this in the development of the proposal. A complete description of the training component, including a regularly scheduled in-service training program for staff, parents and volunteers must be part of the proposal package.

Training activities may include formal and informal staff meetings, workshops, retreats, demonstrations, work conferences, laboratory, clinical and field experiences, training in the use of media, cooperative enterprises with nearby projects, and regional and staff institutes.

It is strongly recommended that the responsibilities of the training coordinator be assigned to a staff member who can work closely with the Project Director. This will facilitate the involvement of the staff of all relevant community agencies in the planning of the training effort, and help ensure that every possible resource is tapped to obtain the cooperation and assistance of professionals and consultants in a variety of fields. Every effort should be made to tie training of CFRP staff in with training opportunities that exist through other agencies.

The following kinds of persons might contribute to various aspects of training during the grant year: educators, pediatricians, psychologists and specialists in mental health, social workers, nutritionists, home economists, specialists in speech, hearing and language disabilities, family life educators, dentists, psychiatrists, public health nurses, experienced teachers of children with physical, mental and emotional handicaps. Local hospitals, community colleges, and institutions of higher learning should also be considered as potential resources for consultants and trainers.

I. AGENCY COORDINATION: CREATING A LINKED PROGRAM NETWORK

Each CFRP will incorporate into its system of service delivery the major resources necessary to provide continuity of program between age levels to fit individual needs, and continuity of comprehensive services to children and families. As stated in Section II, the specific linkages, contracts or agreements required by each CFRP will depend on local needs assessment and the availability and appropriateness of the resources available. Agency relationships which have already been developed by the Head Start program should facilitate the development of the CFRP system. In communities which have already established 4-C (Community Coordinated Child Care) Committees, the CFRP should seek 4-C assistance in making use of cooperative mechanisms which may already be in place, or in developing new and complementary linkages.

Proposals submitted must include letters from those agencies or organizations with which the CFRP has negotiated working agreements, contracts or arrangements. The letters should contain a substantive description of agreements to provide services, staff, reciprocal services, or to share funding or programs. The proposal should also include description of negotiations in progress (but not completed) with other agencies.

See Appendix B for a list of examples of organizations and agencies a CFRP may want to approach for assistance.

1. Parent-Child Centers

Where there is an OCD Parent-Child Center in the same community, it is expected that the CFRP and PCC will coordinate their operations and provide services which are complementary and reciprocal. For example, the PCC may provide all the services required by parents with children in the 0-3 age group. They might also combine training activities, exchange staff, conduct joint activities for families or share developmental programs for parents. The CFRP might become the provider or prime resource for the delivery of health services to all children and families, while the PCC assumes responsibility for the parent and social service components. The proposal must clearly describe the working agreements arrived at jointly, and concurred in by the respective policy councils/committees.

2. Day Care Services

In order to meet the assessed needs of individual children, day care resources may be a necessary part of the CFRP linked program network. Arrangements, agreements or contracts with local day care providers (including centers and family day care homes) and/or the local Social Services agency will depend on the kind and quantity of day care services available. In planning, the CFRP will also have to consider the general profile of enrolled families in the target area and project needs according to the number of AFDC families who may be eligible for day care provided through Title IV A of the Social Security Act, the number of over-income families (according to Head Start policy regarding income eligibility) who may also require day care services, and those families who, although eligible for Head Start, may not be eligible for day care under Title IV A.

Depending upon the local circumstances, the CFRP might seek a formal commitment from the local Social Services agency that a specified number of day care "slots" will be reserved for placement of children referred by the CFRP in day care homes or centers with which the agency has purchase of care agreements. As another possibility, the CFRP might work out an arrangement with the day care providers themselves to cooperate in taking referrals. If the CFRP plans to provide day care services directly using grant funds (see Section IV-C, Minimum and Additional Services) it might enter into a purchase of care agreement with the Social Services agency to be reimbursed for the children eligible for services under Title IV A. Reciprocal services from the CFRP such as making training available to day care workers and family day care mothers, or including day care families in family education programs, should also be considered.

3. Social Service Agencies

In addition to agreements described under 2 above, coordination with local social services agencies may be effected to provide services in family planning, social case work and group work with families, protective services and counseling in crisis situations, and to provide linkages with food assistance programs (such as food stamps and commodity foods). Such coordination might be accomplished through the assignment by the social services agency of appropriate staff to work directly with the CFRP assessment team or families for a specified period of time each week, or to be available for consultation on an as-needed basis. In some areas, cooperation might take the form of providing facilities for use by the social service agency (e.g. family planning and food stamp distribution) in working with their clients in the target area.

4. Health Service Agencies

Each CFRP will build upon its present system for the delivery of health services, including medical, dental, nutritional and mental health services, and develop additional mechanisms to provide for the expanded scope of the CFRP and delivery system. Special attention must be paid, however, to the specific focus on assessment of individual needs and the importance of integrating the assessment of total health requirements with social and educational needs as defined by and with each family. Consideration should be given, therefore, to the availability of direct medical consultation to the assessment team. CFRPs are encouraged to obtain, through arrangement or agreement with a major health service agency, the designation of appropriate staff to serve on a regular consultative basis. This would mean providing direct coordination and linkage between the CFRP assessment team and the community resources providing services to the families and children in each area of the health component.

A major resource for the health care of children in families eligible for medical assistance will be the local or state agency responsible for the administration of Title XIX of the Social Security Act as amended in 1967. Under the Medicaid Program, services are required for the "Early and Periodic Screening, Diagnosis and Treatment of Eligible Individuals Under Age 21," including effective outreach to create awareness and use of existing health care services. Each proposal must describe the strategy for the use of Medicaid (particularly the early and periodic screening, diagnosis and treatment services) which will be used by the CFRP and which has been developed through consultation with local and State Medicaid administrators and providers. Copies of letters of agreement, contracts entered into, and other documentation as appropriate must be attached. CFRP sponsors may obtain further assistance from the Program Regulation Guide (MSA-PRG-21, June 28, 1972, issued by the Social and Rehabilitation Service Division, DHEW, Washington, D. C. 20201), State agencies administering approved Medical Assistance Plans, or the OCD Regional Office.

5. Linkages for Educational Services

Each project will be required to develop or expand mechanisms for coordination with local education agencies, including individual public and private schools serving children in the target area, and school system sponsors of federally funded programs under the Elementary and Secondary Education Act and the Adult Education Act. School system personnel, such as psychologists, social workers, nutritionists, speech therapists, counselors, and specialists in various areas such as reading, adult education, or learning disabilities in children, are potential resources for consultation and assistance to staff, children and families. Their services might be provided on a volunteer, as-needed basis, or through arrangement or contract with the school system.

In seeking resources for educational services to children and parents, CFRPs should also consider other public, private or voluntary organizations. Associations of parents of handicapped children, for example, might supply persons to work with CFRP families having handicapped children. Volunteer community reading councils, tutoring programs, Big Brothers or other organizations might offer assistance in working with older children on an individual basis. Students in high school child development or Education for Parenthood courses are also potential resources for help in meeting individual educational needs.

Homemakers Clubs, associations of home economists, community mental health organizations, associations of retired persons as well as community colleges and local universities, might also contribute to educational programs for parents.

Every effort should be made to coordinate the planning on an individualized basis for CFRP children who are entering school to insure that they receive consideration for programs such as Title I, Follow Through, and other programs with resources to meet their particular needs.

J. FAMILY PARTICIPATION

Since the family itself forms the keystone or basic unit of the CFRP delivery system, the success of the demonstration will depend in large part on the methods used to involve family members in all phases of the child development resource system. The project design must be planned with the role of the family, as a distinct and individual child rearing system, clearly understood and defined as each component of the CFR programs and services is set in place.

In addition to compliance with Head Start policies and performance standards for parent participation, each CFRP should seek to broaden and deepen the involvement not only of parents, but also of other significant persons in the child's life, such as grandparents, surrogate parents, and older brothers and sisters in the ongoing activities for children and families.

The following points should guide the development of the project design:

1. The CFRP acts as a resource to parents and families and does not usurp parental prerogatives to decide what is best for their children. That is, the individual family's decision must be the final determinant of the choice of programs and services in which the children and families will participate. It is essential therefore, that parents be presented

with several options and that program flexibility allow for the exercise of parental choice rather than provide a prescription of "what is best."

2. Support services must be offered to families in ways that guard the family's dignity, privacy and right to self-determination. Social Services should enable families to increase their skills in coping with family problems, and to make use of resources in a manner which fosters independence and self-confidence. Parents must see themselves as responsible guardians of their families' well-being, as actors, rather than those who are acted upon. Parents should also view the CFRP delivery system as one which ultimately depends on them if it is to benefit their children.

3. The longitudinal dimension of the CFRP concept provides significant opportunities for the involvement of parents over a longer period of time than is usually possible in the one year time span of most Head Start programs. The project design must provide therefore for dynamic growth in the development programs and services offered to parents and family members. Thus, as the needs of the children and families emerge and change, the CFRP services will develop and change accordingly.

4. An important characteristic of the CFRP is that individualizing programs for parents is just as important as individualizing programs for children. Further, the range of activities and services provided directly by the CFRP, or through available resources, must be broad enough to meet the needs of the newly enrolled family as well as those with longer experience with the program, to suit the interests of parents with large families as well as the expectant mother, and to include fathers and other male family members in ways significant to them as well as to their children.

5. Recent findings indicate that most Head Start parents experience positive feelings about themselves while their children participate in the program. However, there are also indications that those feelings often diminish during the period which follows the Head Start experience. Other findings indicate that some of the gains made by Head Start children may also tend to diminish over time. We can only speculate about the reason for these findings, but it may relate in part to the lack of continuity in family involvement as children move from preschool to school programs. The CFRP should explore and develop ways to reinforce parental efforts to assist their children through the transition into school.

The design of the CFR program should include the kinds of programs and services which support the efforts of parents to help their children cross the "bridge" into school. Continuation and follow-up of the children and families in regard to health, nutrition, social services and other special needs will avoid the often abrupt break which many families have experienced when their Head Start involvement comes to an end. Continued involvement in the CFRP beyond preschool will hopefully enable parents to maintain self-confident involvement in their children's education, reduce the possibility of lowered self-esteem, and the potential effect, if any, this may have on their children's achievement.

K. BUDGET

The budget for a CFR program should be submitted on OS-189 (Budget Form, Sections I, II, and III A-H), as part of the total proposal or application. As stated earlier in these Guidelines (Section III-5, and on page 8), funds for the Child and Family Resource Programs cannot exceed $125,000 per program. However, the grantee's existing level of funding for families participating in the CFRP will be at least maintained, so the CFRP grant, in effect, supplements the basic Head Start grant.

Since the objective is to expand the use of community resources, and not to duplicate them, CFRP funds may be used for program services only when there are no other resources available. However, in many cases it is recognized that CFRP funds may be necessary to supplement those resources, or to partially subsidize additional staff required to serve project families. For example, since it cannot be assumed that all CFRP families will meet the eligibility requirements for certain services (e.g. all families may not be eligible for Medicaid, or for other services provided to AFDC recipients), it may be necessary to provide these services from grant funds.

Priority for providing direct services (that is, paying for services directly) will go to the Head Start age children in the family.

During the early part of the project's first year, a portion of the funds must be allocated for planning and developing the local CFRP system, at least to the extent that some personnel (and possible consultants) will be engaged in these tasks.

Fees collected from above-income families who request and are provided direct services must be in accord with the fee schedule to be issued in the near future by OCD. Information and assistance relating to the development of this fee schedule will be provided to applicants at a later date.

Federal funds provided under this project may not be used for costs of construction, except for minor remodeling or alteration of existing structures.

The proposal should include tentative budget projections for the second year of the projects.

Projects will be expected to keep financial records to identify expenditures and remaining funds in the grant on a quarterly basis; other financial records will be required as part of the evaluation design.

As stated earlier (Section IV-B), no local in-kind contribution in the form of non-federal share is required for the experimental project. However, because of the nature of the CFRP and its emphasis on utilizing community resources, projects will in all probability secure considerable in-kind. Grantees must keep careful records on such contributions, in order to document the extent of services provided by community resources.

Where practical, Head Start grant funds should be used jointly with the CFRP experimental grant. This will permit the planning of the program as a whole, so that the additional monies may be applied flexibly throughout the program, thus assuring that all participants will have equal access to the benefits of increased services. When the recipient of the CFRP grant is a delegate agency, CFRP funds used by any other delegate agency of the same grantee may be used only for purposes specified in these guidelines.

L. INFORMATION DISSEMINATION AND PROGRAM REPLICATION

As indicated earlier (I-B, page 3), it is expected that CFRP systems will be replicable by or adaptable to other child development programs in the future. It is also expected that there will be a great deal of interest from other Head Start (and other child development) programs in learning about the CFRP and even visiting one to observe its operations. Therefore each CFRP must develop a feasible system for disseminating information about its program, and responding to requests for visits.

V. EVALUATION

Within six months after programs are funded, a report will be prepared by OCD Headquarters containing basic data on the CFRP families and services provided to them, and describing the process of installing the CFR programs.

OCD Headquarters has responsibility for planning, implementing and funding the CFRP evaluation. While local programs will not have to expend part of their program funds for evaluation, they will be required to keep necessary records for the evaluation. A detailed evaluation plan is under development. This plan will focus on documenting the process by which Head Start programs evolve into CFR programs.

All CFR programs will be required to cooperate with and participate in the evaluation. Therefore, each proposal must contain a statement of intent to cooperate with the evaluation and to keep and make available necessary records.

Although the OCD Evaluation staff is responsible for decisions pertaining to the evaluation design, CFR programs will be consulted concerning the evaluation and will have ample opportunity to make suggestions and comments as plans develop. Participation in a national experimental project makes special, and sometimes unforeseeable, demands on programs. However, every effort will be made at the national and regional levels to minimize the additional requirements caused by participation in an experimental project.